

MARCH 1959

The **School Executive**

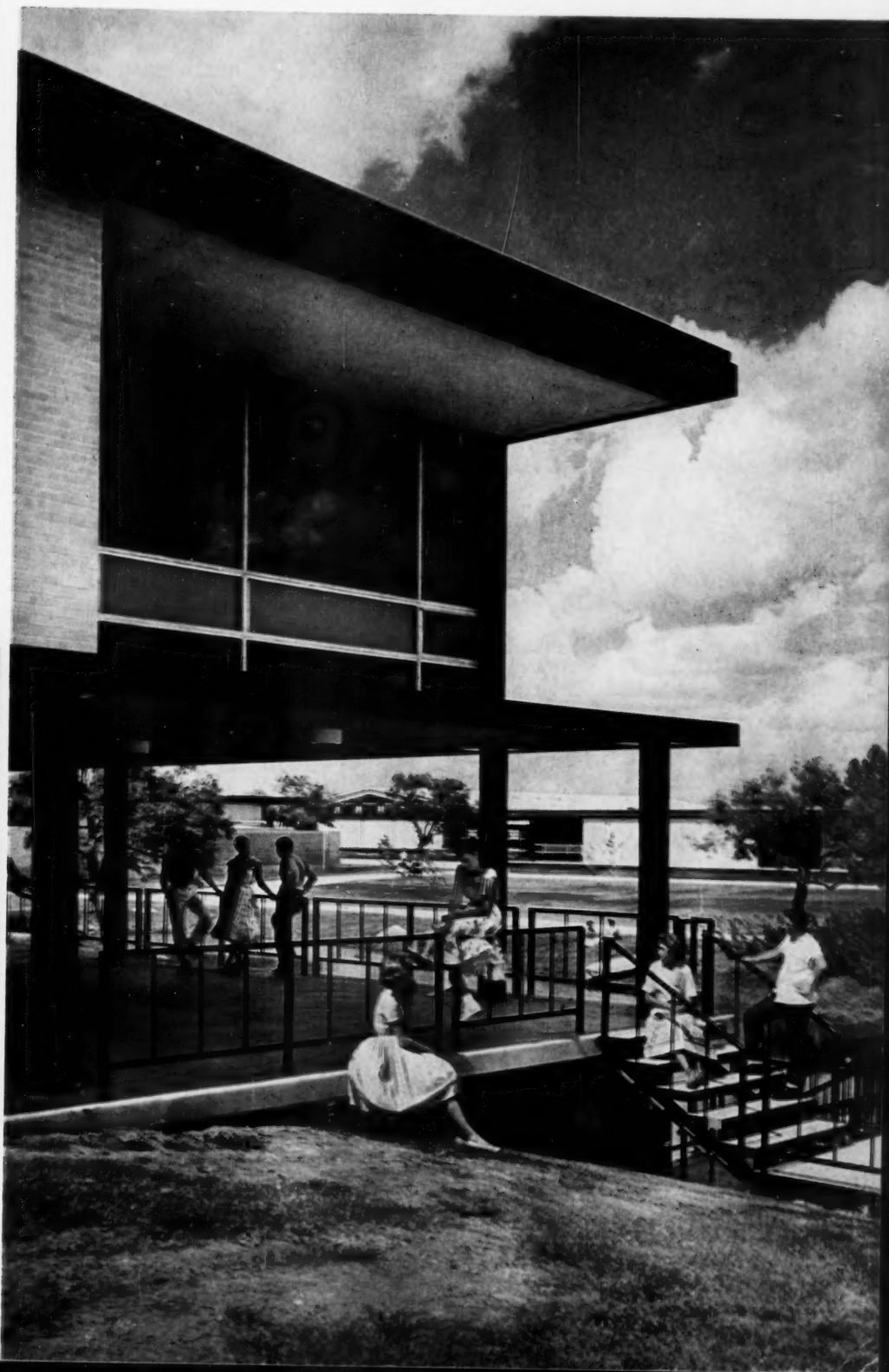
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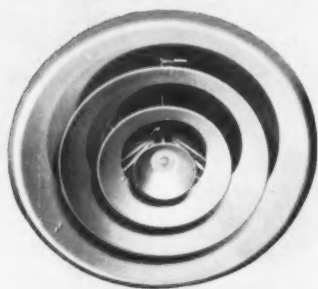


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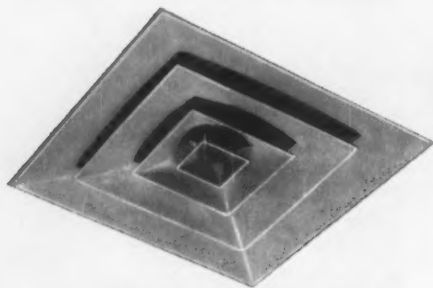
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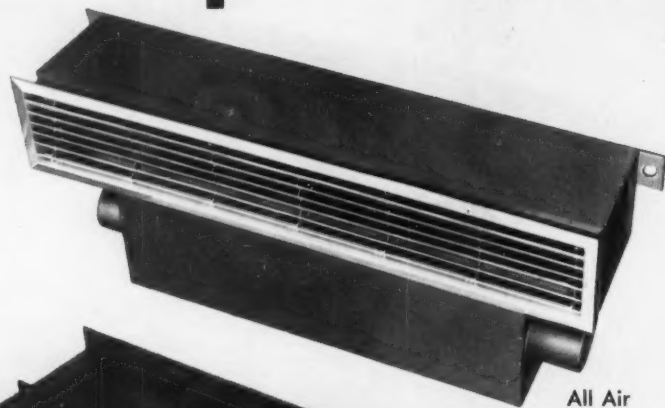
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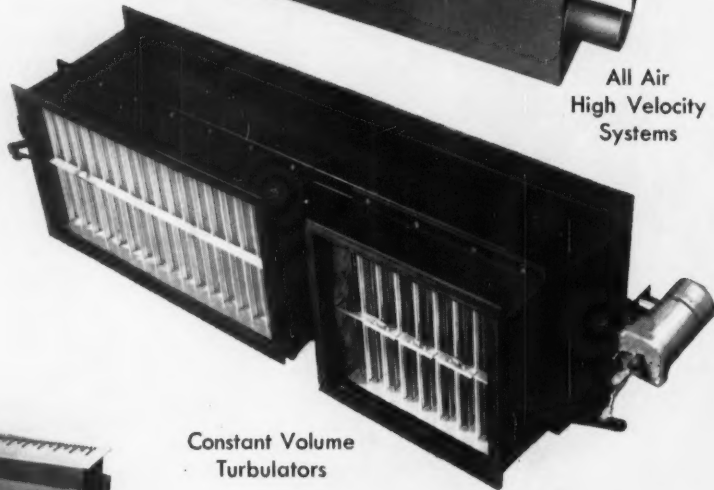
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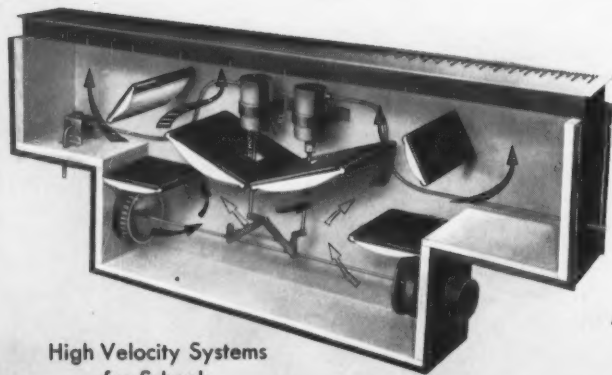
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The School Executive

MARCH 1959

Volume 78

Number 7

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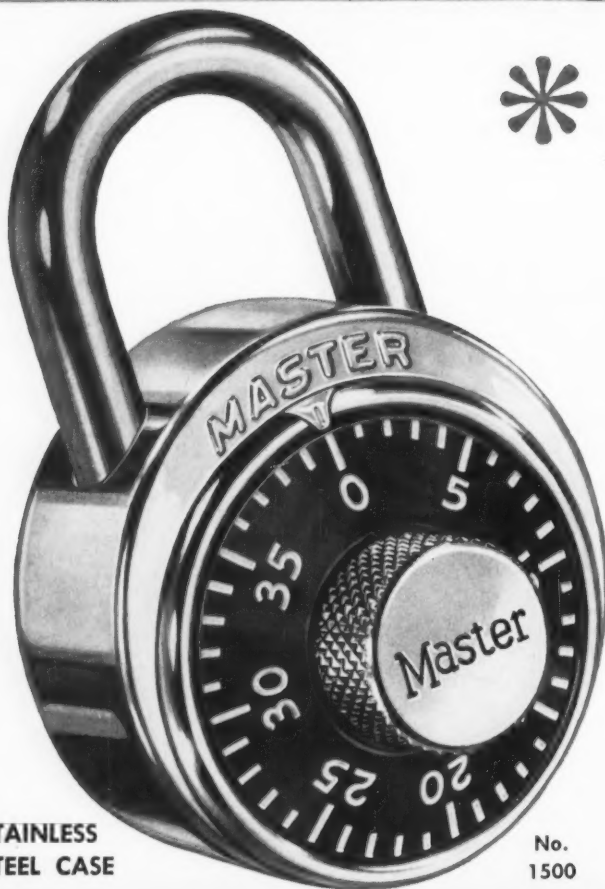
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PREVIEW OF APRIL

I want to call your special attention to three articles in the April issue of *THE SCHOOL EXECUTIVE* . . . Van Miller's continuing series on leadership in school administration takes up next month the subject of technical competence and public sentiment. In this discussion Dr. Miller analyzes the relation of the competence of the administrator to the development of a favorable sentiment on problems and issues in his community. He draws upon similar analyses in business and industry in this thought-provoking article. . . . Our research staff recently conducted a survey of the reading practices and habits of school administrators. The results set forth in the April issue raise important questions. One such is, "What happens to any profession whose members do not find time (or at least enough time) for serious and continuing reading?" . . . G. Derwood Baker of New York University describes an interesting practice of industry-school cooperation in a Latin American country. His analyses and interpretations provide much food for thought in local situations everywhere.

—WALTER D. COCKING, editor

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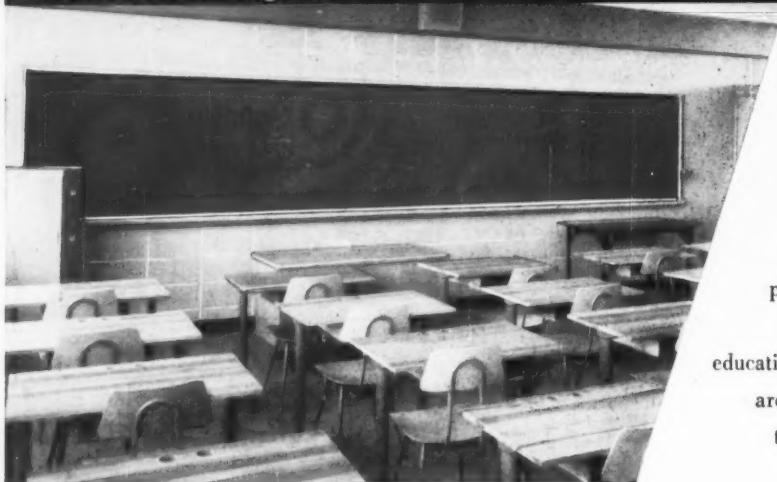
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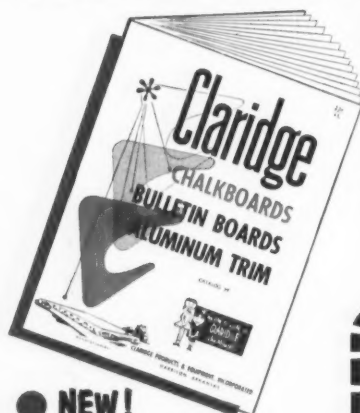
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THE SCHOOL EXECUTIVE



by Walter D. Bocking

The School Executive's Editorial Aim

MANY OF THE readers of THE SCHOOL EXECUTIVE ask periodically about its editorial program—its aims, its procedures, its activities. So this month I am devoting "As I See It" to presenting our ideas and practices on some of these questions.

First of all, THE SCHOOL EXECUTIVE is beamed at educational administrators or those concerned with some of the many relationships of school administration. It is well to keep in mind that although there are more than 50,000 school districts which operate public schools, and more than 15,000 private and parochial schools, the vast majority of the school systems are small. Among public schools there are approximately 5,600 districts or systems which have total enrollments of 1,000 or more full-time day pupils. The typical school administrator lives in a community of 5,000 and the school system has an enrollment of less than 1,000 pupils, a teaching staff of 40-50 people. The school district has two or three school buildings. The problems of administration of such a system are the primary concern of THE SCHOOL EXECUTIVE. Our primary aim is to assist the administrators in such school systems with the problems and conditions they face.

There are various ways to fulfill such a role. One is to search out and get those responsible to describe good practice and whenever possible to appraise the results which they are getting. Repeated inquiries show that our readers suggest this type of material as the number-one way in which they believe a professional journal can be helpful to them. Of course, the difficult question is, "What is good practice?" There is little question that there are thousands of good practices going on in American schools. To locate these and describe them would seem to represent one of the best services which educational journalism could render.

AS I SEE IT, another thing which educational journals can and should do is to present new *ideas*. Ideas, as we all know, are among the most important forces in shaping what we are. Certainly we do not need to argue the importance of ideas to school administrators. It is the life blood of their vocation. A school man's professional magazine, therefore, should be an important medium to present him with new ideas. Every issue

should have at least one. Who shall furnish them? Many persons from many sources. Sometimes only the idea is presented. In other cases, the idea is examined carefully and ably discussed and debated. Yet the *idea* is the important element.

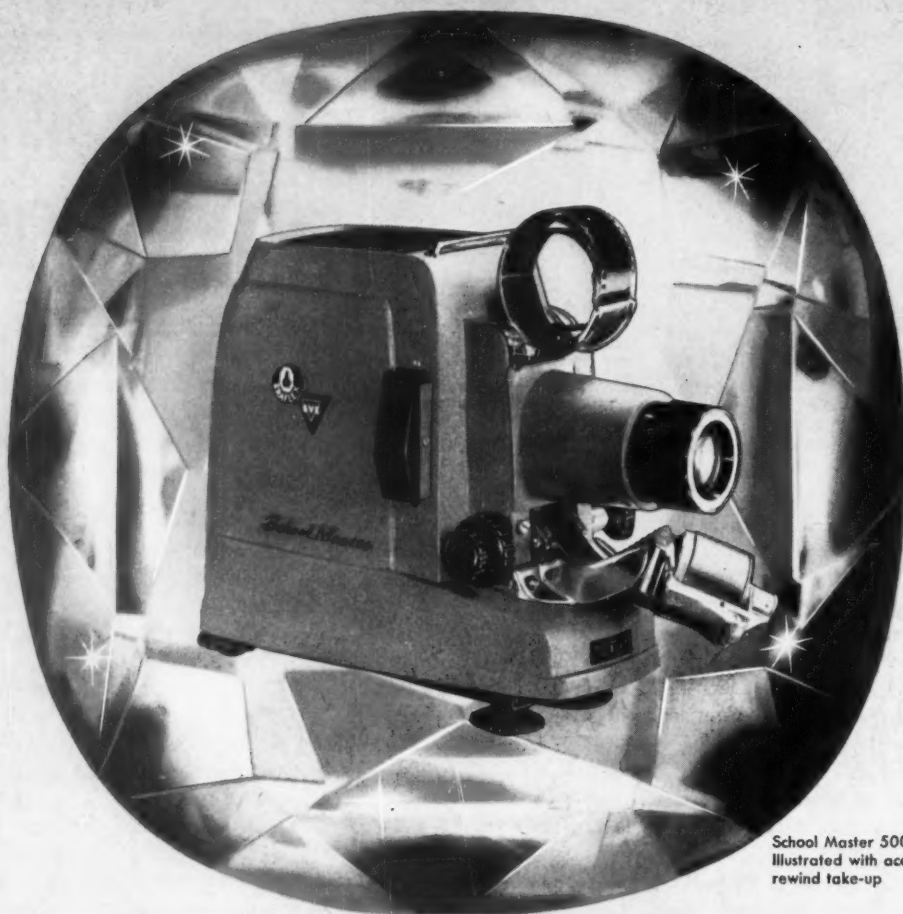
Another objective of our journal is to present the results of research of concern to school administration. We don't know how to do this job well. Yet it is important. In the years immediately ahead when it is as certain as anything can be that vast and fundamental changes must be made in almost every phase and area of the school, it is vital that the administrator have fact and research results from which to formulate decisions. We accept our responsibility to do more than in the past to present the results of important and pertinent studies.

WE ALSO ACCEPT as one of our editorial tasks the presenting of facts and major arguments pertinent to controversial issues related to school administration. Our aim is objectivity and fairness. The position of the magazine on such issues will be presented on the editorial page. Again we feel that our readers have the right to expect that their educational journals present this necessary information. We know that at times the accomplishment of this task will be difficult. We shall always endeavor to do our best.

There are other tasks. Searching out and presenting in capsule form the important educational news of the month. . . Calling attention to the important new books and pamphlets. . . Describing new products. . . Adding here and there a touch of humor, a spot of inspiration, a challenge to attack the unknown, a plea for dreaming and a renewal of faith in the great values on which our free society is based.

All of these things we attempt to present in a pleasing and appetizing manner. Good layout and design are the twin keys which seem to open the door to reading.

In achieving these aims, your editors do many things, visit many places, take part with others in innumerable discussions and conferences, read many books and articles and to the extent that they are able, attempt to think through the problems of school administration and how a professional journal can be a greater aid to the administrator on the job.



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Air Conditioning

In this issue of *THE SCHOOL EXECUTIVE*, pages 47 to 58, we present a comprehensive analysis and case study of air conditioning. Also the cover and pages 74 to 79 present a picture story of the new, air-conditioned San Angelo, Texas High School. Ten years ago these stories would have been visionary and impossible. Today they mark a strong developing trend.

No longer can air conditioning be considered a luxury or fad. It marks another milestone in man's technological march. It is the best answer we yet have in the search for thermal comfort and efficiency. The case for air conditioning does not rest primarily upon the comfortable heating and cooling of buildings, although these are important, of course. Air conditioning is justified most of all by a growing body of evidence which shows that it increases efficiency and promotes health. The Schenectady people point out that in their new air conditioned high school, absenteeism among teachers and students has been markedly decreased. The evidence shows that increased efficiency is the primary reason why business and industry air condition new buildings.

Such considerations deserve careful study. The small percentage of additional cost required for air conditioning a structure which will be used by a community for 75 to 100 years is indeed an economy if we are interested in an educational plant promoting efficiency in the performance of faculty and students.

Air conditioning is here, it is no longer a fanciful theory. What are you doing to present the facts about it in your community?

The Citizen and His Schools

Recently the New York State Citizens Committee for the Public Schools held a luncheon at the Waldorf-Astoria Hotel at which its first annual Citizen Awards were presented. The audience was composed of the most outstanding business and professional men and women of New York City. The two awards presented were given to Roy Larsen, President of *Time*, Inc., and Norman Cousins, editor and publisher of *The Saturday Review*. In each case the award was based upon outstanding service to public education. The enthusiasm, interest and approval of the group were evidenced on every hand. Maybe most important was the fact that these busy people of large affairs took the time to attend an event of this kind.

The significance of this occasion is that there is nothing

unusual these days in citizens getting together to consider their schools. All over the country such meetings are daily occurrences. No longer is special pleading necessary to get people together to discuss better schools. While most school administrators would remark that this is good and as it should be, it is equally true to say that it has not always been so. One thing is sure from the evidence—the American people today are more interested in schools than ever before. They are willing to devote time and energy to them and for them.

This is good. Real interest in schools means that a person will take the time to test the truth of the ideas he has, get the facts needed to draw conclusions and accept new truths in the light of evidence.

Here we have the encouraging side of citizen interest and participation in schools. The last few years have seen the development of a public climate in which schools have center stage. Now that we have it, can we use it wisely so that the American dream of free universal education for all can really be realized?

Your Health

Mr. School Administrator, do you consider your personal health important? What are you doing to safeguard it? Do you have stomach ulcers or other nervous complaints from dealing with difficult problems? Does the "little woman" tell you to slow up and take it easy, or that you are hard to live with? This is all a part of the administrator's occupational disease. Ordinarily he doesn't seem to have sense enough to prevent such things from occurring, let alone to cure them after they happen.

Most school administrators I know are "past masters" at do-nothing when it comes to their own health. Why is that, do you suppose? It can't be written off as sheer ignorance; administrators generally admit that they know better. Yet they go their blissful ways, incubating all kinds of aches, pains and tensions, just because they refuse to protect their own health. It doesn't make sense but it is true.

A school administrator is one of the most valuable public servants a community has. He owes it to his associates and community to safeguard his health. He owes it to his family who worry about him, and whose welfare is so inexorably related to his good health. He owes it to himself to be at his best, in order to deal with all of his many problems efficiently.

Mr. Administrator, look after your health. No one else is going to do it for you!

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#8 in a series of case studies on decision-making in administration

In any healthy system, ideas about education are always changing. At present we are still involved in—and probably will be for some time—the transition from a more authoritarian to a more democratic approach to teaching and administration. Schools of education today urge that principals involve teachers in decision-making on many school problems. However, in the schools themselves, some principals trained in the older approach do not even give lip service to democratic administration. They may claim that they have tried it, and it failed, or that their school, community, and/or teachers are “not ready”; or they may feel that their authority will be undermined.

This case concerns an administrator who “makes no bones about” being boss and a teacher who finally rebels.

Teachers Should Be Seen . . .

“GOOD MORNING, Betty. Isn’t this a lovely spring morning? Come on in and sit down. I have a little proposition I want to make to you before you start your music classes this morning.”

Betty Jackson sat down facing her principal, Oliver Radford, and listened attentively. She knew from her experience at the Crawford School during the past year that Mr. Radford wasted little time in getting down to business.

“Now listen to me,” the principal said. “You know that teaching music half-time here and half-time in the Meramec School isn’t the easiest thing in the world. Why, you don’t even have a room you can call your own. That’s true, isn’t it?”

“Y-e-s, but—”

“All right,” the principal interrupted. “I just learned we’re going to have an opening in our 6th grade next year. Miss Sycamore is leaving because she’s getting married this summer and is moving to another town. And I think you would be just the right person for her job. I’ve been talking to the boss, and we think you would

(Continued on page 12)

By **MORRIS HAMBURG**, principal, Fulton School, Hempstead, N. Y. This case is taken from his book, “Case Studies in Elementary School Administration,” published by Columbia University.

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(Continued from page 10)

fill the spot beautifully. We checked your records and found that your license is O.K., and that you did some intermediate-grade teaching before you came here. I know music is your first love and that's why you were anxious to take this job when it opened up last year. But I should think that anyone of your calibre, and nine years experience, ought to be able to handle a 6th-grade class without difficulty. What's more, you could really do some work in music with your own class, rather than being shunted around from pillar to post. How about it?"

Betty Jackson thought for a moment, and said, "I would like a little more time to think it over. When must you have my answer?"

Mr. Radford smiled and said, "I don't know why you have to have any time to think about it. You know perfectly well that if the boss and I want you for that job, then all we have to do is transfer you into it. Of course, I'd rather see you come of your own volition, but actually I really think you would be better off in it. Suppose you let me know tomorrow morning."

That evening Betty Jackson talked the situation over with her mother. After some discussion, the teacher finally said, "I just hate to think of being completely under the control of that man, but when you come right down to it, what choice do I really have? We need the money, and I'll earn five thousand next year, thanks to my previous teaching experience. If he wants me, and the boss gave his blessing, then, as he says, I have little or no choice in the matter. But I do hate to get stuck there. From everything I've heard and seen, he's a dictator 'from the word go.' But, I suppose if I mind my own business, everything will work out. I've done all right with him this year, and if I can do it in music, I certainly ought to be able to do it in the regular classroom."

The next morning Miss Jackson informed Mr. Radford of her "decision." The principal beamed and said, "You won't regret it. I'll tell you more about what I expect from you when I see you next fall. Meanwhile, you go right ahead with your job."

Miss Jackson devoted most of her summer preparing lesson plans for her new assignment. Miss Sycamore had been most cooperative in providing the new 6th-grade teacher with detailed information about the classwork. "You'll hear more from Mr. Radford when you start next fall," she told Betty Jackson. "About the only advice I can give you after having been here for three years is that you keep your nose to the grindstone and never talk back to him. You'll get used to it after a while. But I'm sure glad I earned my Mrs. this year!"

At the opening faculty meeting the following fall, Betty Jackson got an inkling of what Miss Sycamore had meant. The entire meeting consisted of a series of short, but explicit, instructions by the principal about rules and procedures to be followed in the Crawford School. The teachers were then dismissed to their respective classrooms to take care of details for the opening session the following day. Everyone, including Betty Jackson, knew exactly what was expected of her.

THE SCHOOL EXECUTIVE

Later that morning, Miss Oliver, Mr. Radford's secretary, told Betty Jackson that Mr. Radford wanted to see her in his office. The principal sat very straight in his chair and motioned the teacher to sit down. "Betty, I'm going to give you some very simple instructions, which I expect you to follow. First, I expect you to have order in your classroom, and I do mean order. I assume you know how to maintain discipline, and under no circumstances is it to be violated. Therefore, I expect you to have your door open at all times. Secondly, you are to check with my office every morning before you go to your classroom. If there are any new instructions, I will give them to you at that time. Every teacher is expected to do this. And lastly, I expect you to do a good job with the children academically. You just put it on the line with them and don't worry about the parents. If the kids aren't working up to snuff, you just send them to me. You don't ever have to worry about my backing you up. Parents meddle too much, anyhow. Oh yes, there is one more thing. Don't be concerned about the boss, if he should ever come around to visit. I know he hates me and would just as soon get rid of me. But I have tenure, and I only have two or three years before I retire. So he's waiting me out. Now, you follow my rules and we'll have no difficulties. Believe me, Betty, you'll find in the long run things will be much easier for you than they would be in some school which has committees for just about everything, taking up all of your time when it should be spent teaching."

Without waiting for any reply Mr. Radford turned to some work on his desk, indicating that the interview was at an end.

When school opened the following day, there was a minimum of confusion and noise. Even the children seemed to understand what was expected of them, and Betty Jackson was amazed at how easily everyone fell into a routine from the very beginning of school. As the opening weeks flew by, the new 6th-grade teacher found she knew exactly what was expected of her. She found she had free rein to teach as she wished as long as order was maintained. Furthermore, for the first time in years, she had opportunities to spend more than 40 minutes on a music lesson.

Later that fall, when a particularly interesting music pageant had been completed by her students, she asked Mr. Radford to come to it, and the teacher was highly complimented by the principal. However, Miss Jackson never again sent for the principal to show him what had been accomplished in the classroom, because at a faculty meeting held shortly thereafter, Mr. Radford said to the group, "I wish all of you would take a lesson from Betty Jackson and see what can be done in correlating subject matter if you put your minds to it!"

Betty's relationship with the other teachers had always been excellent, but she noted after that faculty meeting that several of the teachers' attitudes toward her had cooled and they were not as frank in their faculty-room discussions as they had been before. One of the

(Continued on page 16)

NEW DIMENSIONS



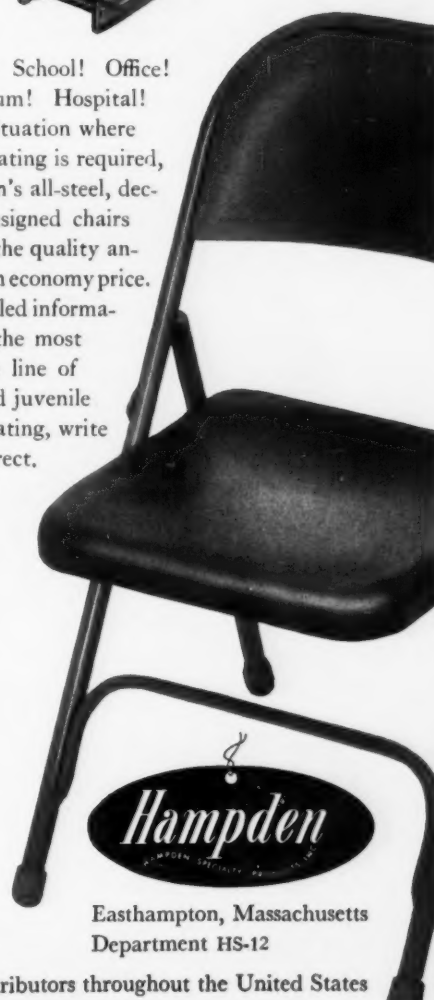
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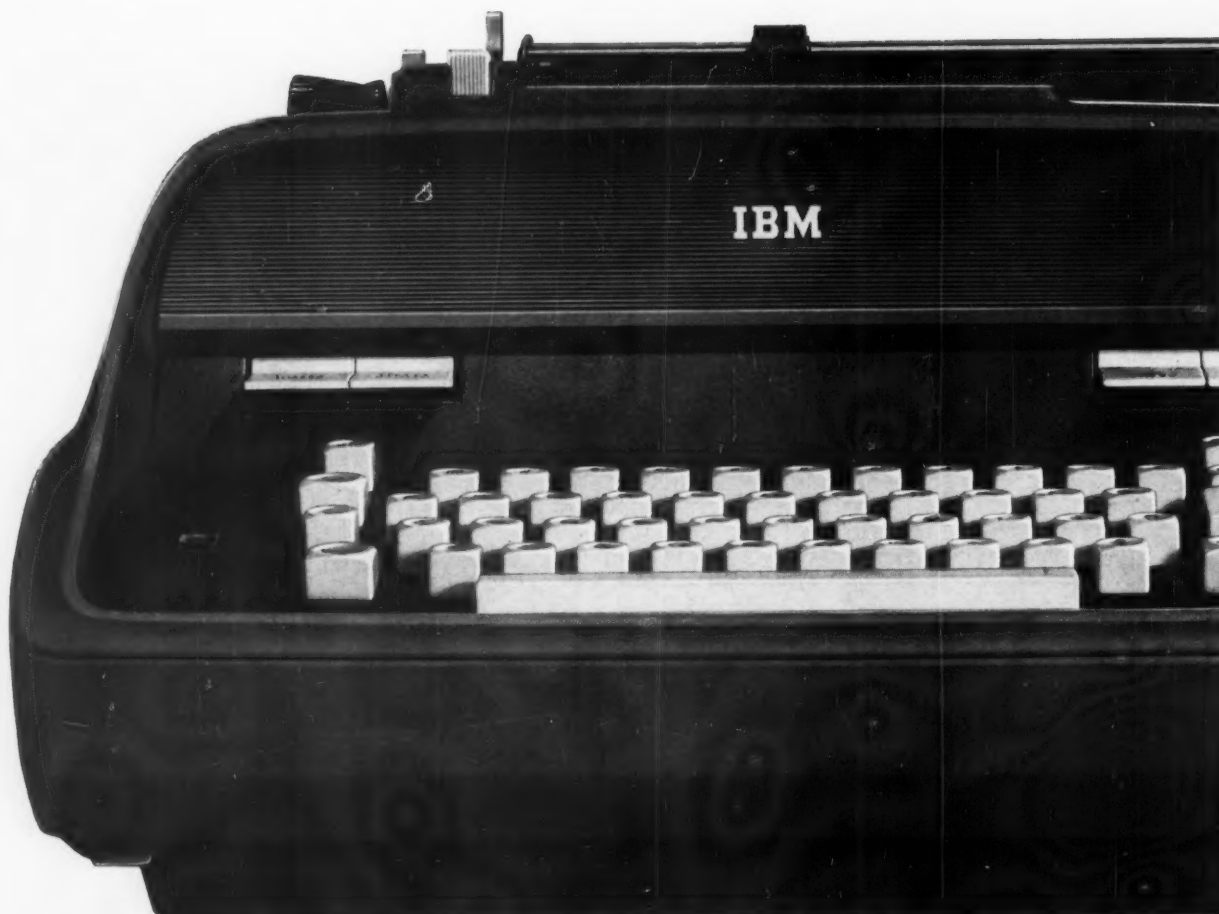
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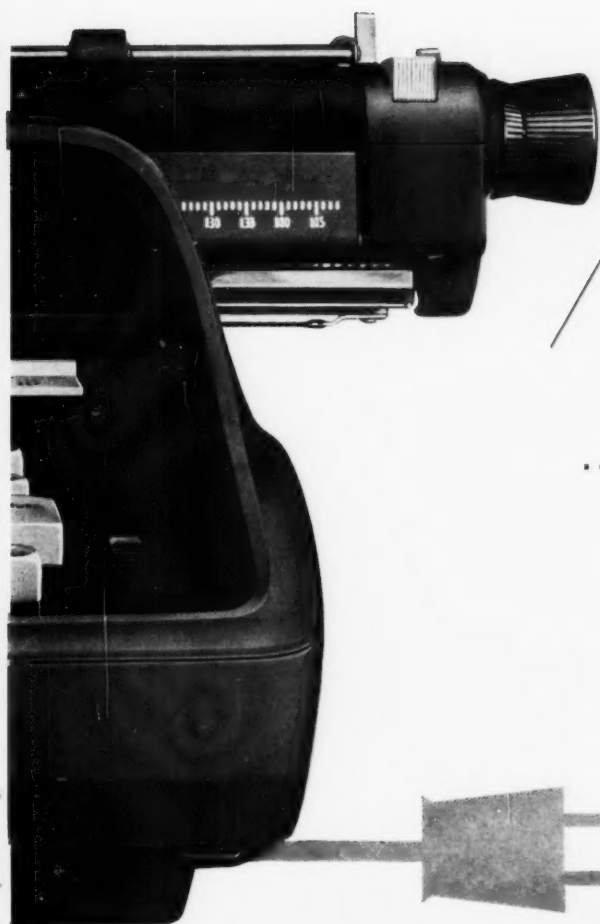
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(Continued from page 13)

teachers told her, "Well, Betty, it seems to be your turn this year to be the principal's pet. But don't worry, next year it'll probably be someone else."

Not long after this, Miss Jackson learned of another type of situation that she should try to avoid. It revolved around one of her students, Victor Ross. The boy, despite the teacher's efforts, began to be unruly in the classroom. Miss Jackson, by talking over the situation with some of the boy's former teachers, checking data on his permanent record card, and by consulting with the school psychologist, found that Victor's attitude was due primarily to a bad home situation. She had several conferences with the mother, and the teacher and the parent agreed on a mutually satisfactory course of action. Miss Jackson was to have complete freedom in disciplining the boy.

One afternoon in February proved to be most trying for Miss Jackson and her "problem child." After a series of incidents, the teacher said, during a moment of exasperation, "Victor, if you misbehave again, I'll send you down to see Mr. Radford."

Not long after this remark, Victor was out of hand again, and Miss Jackson, feeling it necessary to carry out her threat, sent the boy to the principal's office. It was the first time that the teacher had used this type of disciplinary action.

Miss Oliver appeared at Miss Jackson's door soon thereafter. She told the teacher to report to Mr. Radford immediately after the close of school.

An hour later, after dismissing her class, Miss Jackson went to the principal's office. There she found Victor, who had obviously been crying, together with Mr. Radford and Victor's mother. Mrs. Ross, too, gave evidence of having been emotionally upset. The principal took charge of the situation immediately by saying, "Miss Jackson, I want you to know that as soon as Victor was sent to my office, I called Mrs. Ross to come here immediately. She said that she couldn't come, because she had to take care of her baby, but I insisted that she get a neighbor to take care of the child, and that she get here immediately. I don't know exactly what Victor did. All I know is that you found it necessary to send him down here to see me. I also know that he's given us plenty of trouble in the past with other teachers. I told Mrs. Ross that I don't care what the circumstances are, but this situation is never to happen again. If it does, I'll have to classify Victor as being insubordinate and refer him to children's court. I won't stand for any children in this school being disciplinary cases. I think we are much too namby-pamby in the way we treat our kids nowadays. In fact, I'm convinced that this is one of the causes of our juvenile delinquency problem. I hope you understand this, Mrs. Ross, and I also hope that you impress upon Victor the necessity of his behaving himself with Miss Jackson."

With this and a wave of his hand, Mr. Radford indicated that the discussion was over insofar as the parent and child were concerned. When they had left, the principal turned to the teacher and said, "I hope that teaches

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him a lesson. I also hope that you understand I back my teachers to the hilt. I don't think you'll have any trouble from Victor again."

Not long after this incident, Miss Jackson sent for Mrs. Ross for a conference on Victor's progress in arithmetic. The mother came at the appointed time, but it was obvious to the teacher that Mrs. Ross had lost faith in her. There was an attitude of coolness on the part of the parent which Miss Jackson simply could not overcome. And she had to admit to herself that Mrs. Ross would probably never again confide in her.

The last day of school finally arrived, and Miss Jackson had never felt more in need of a summer vacation than that particular year. When she gave her final reports to Mr. Radford, the principal complimented her on a job well done and wished her a happy summer. Miss Jackson soon forgot about the Crawford School, as she busied herself around the house, catching up on many of the things she had neglected during the year.

The summer flew by all too quickly, and then Miss Jackson was once again receiving terse, but explicit, directions at the opening faculty meeting. Miss Jackson, now feeling like a veteran campaigner, began the task of teaching 6th-graders, again, with renewed enthusiasm. In fact, she became so enthusiastic about her work that she forgot one of the fundamental rules laid down by her principal. One afternoon, about three weeks after school had begun, the teacher remembered a joke which she felt was appropriate for the particular lesson being given. The class roared with laughter when she finished, and it took a few minutes for the children to quiet down. Suddenly, Miss Oliver appeared at the door and, without saying a word, closed it. The children became very quiet and watched Miss Jackson to see what would happen. The teacher calmly proceeded with the lesson, but raged inwardly.

Shortly before school was dismissed, a student messenger told Miss Jackson she was to see Mr. Radford before leaving for the day. When the teacher reported to Mr. Radford, he said, "I was walking near your room this afternoon when I heard the loud noise coming from it. I thought you could maintain order, but apparently I was mistaken, so I thought the best thing I could do was make sure other teachers' lessons would not be interrupted."

"But Mr. Radford, the children were only laughing at a joke I told in class. I don't think that they were unruly, and I'm certain that I had not lost control of them."

"Never mind," Mr. Radford retorted. "I don't want to hear any excuses. Next time you feel like telling jokes, I wish you would remember to control your class, so as not to annoy me or anyone else in the building. So far as I am concerned, the incident is closed."

That night, when Miss Jackson talked about this incident at home, her mother said, "I don't know how much of this you can take. It seems to me that your best bet would be to last out the year and, money or no money, I would just as soon you leave that job. But I

(Continued on page 28)

March, 1959

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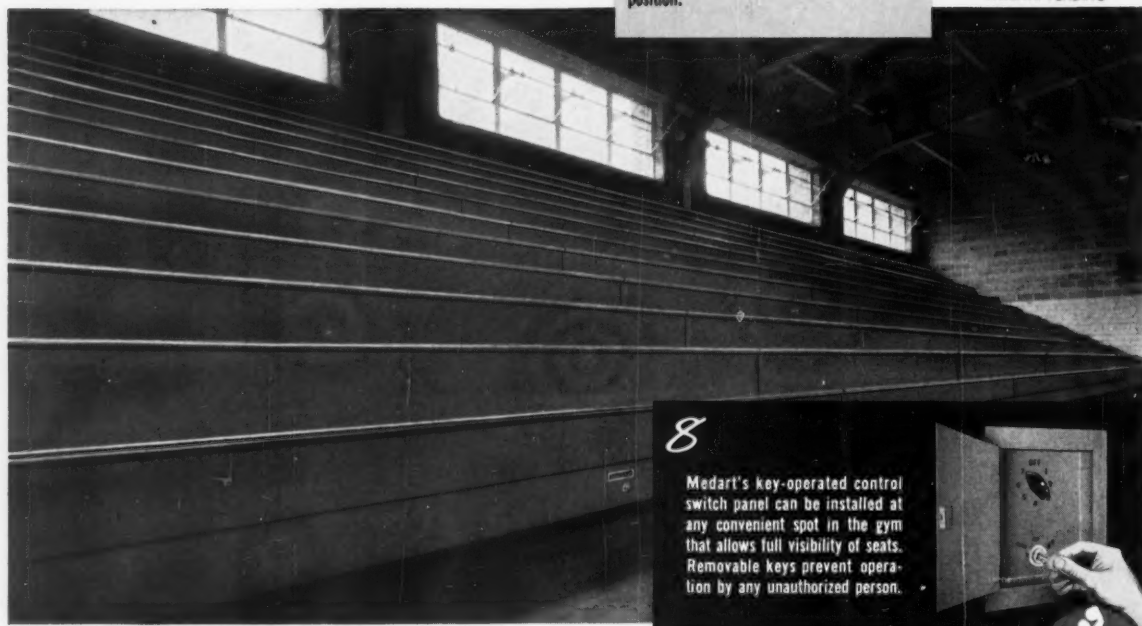
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The author points up the advantages of a long-range guidance program in the junior and senior high schools where attention is centered on each student as an individual

GUIDANCE IS A VALUABLE ASSET

by A. B. CAMPER

Director of Instruction
Roanoke City Public Schools
Roanoke, Virginia

"Why shouldn't Jane take algebra next year?" "Will my daughter's high school program prepare her for college?" "Can my son get a scholarship?" These questions and many more are asked the high school daily. The degree to which accurate and satisfying answers can be given to these questions is one measure of the effectiveness of the school's guidance program.

Guidance is a process which helps pupils make wise educational and vocational choices. It helps them solve personal problems which if left unsolved might result in school failure. The key to all of this lies in the development of realistic self-understanding. A major goal is the creation of an intelligently self-directing individual.

Today's great emphasis on guidance has become necessary for several reasons. The rapid growth of the student population of the American high school has caused the curriculum to expand from a rigid, limited offering to a wide variety of subjects designed to fill the needs of a multitude of students with a broad range of abilities and interests. These students need help to make an intelligent choice

of a high school program, profession and vocation.

Mass education makes it imperative that we focus attention on each individual so that his peculiar needs and educational problems may not be submerged in the mass. Thus a guidance program has become necessary in order to center educational and instructional attention where it belongs—on each student as a person.

Personnel

Guidance involves many people and resources—teachers, counselors, community organizations and lay people. All of this requires careful central planning in order to insure an effective guidance program at each school. Directing this planning is a city-wide coordinator of guidance.

In each school is a school coordinator, who is responsible to the principal for that school's total guidance program. At each grade level in each school is a grade counselor. Undergirding it all are the classroom teachers, each responsible for important parts of the guidance program. All special guidance people are classroom teachers in that they teach one or more classes.

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The guidance people serve as a resource staff. They keep the teachers informed on all college requirements, scholarships and occupational information. They administer and interpret tests, do individual counseling, and, in general, organize the guidance program.

How guidance operates

Let us witness the operation of this process in a modern junior high and high school. The groundwork is laid in the first year of junior high for the more intensive activities of the next year—the 8th grade when the students plan their high school program. Joe who wants auto mechanics, Carl a future physicist, aimless Bill, and all the rest face the future. To help crystallize their plans they work with their teacher on a class study of representative vocations, their opportunities, educational requirements, and the personal characteristics needed for success in each field. Business and professional people discuss their occupations with the class. The students take tests designed to show their aptitudes for various vocations and their degree of educational achievement. The tests are discussed and interpreted for each student in terms of his possible vocational plans. Each student discusses the problem with his parents, who have had the high school curriculum explained to them. The teacher helps each student plan a program based on tentative vocational plans. Finally each student meets with the 8th-grade counselor to review his program. The parents approve this high school program in writing. It then becomes part of the total cumulative record for each student, containing educational and health records, test and personal information which would be of value to teachers and counselors in working with students.

The whole guidance process in the junior high school is planned cooperatively by the school guidance coordinator, a counselor for each grade level, and the classroom teachers. If students show certain educational weaknesses, it is the responsibility of the school coordinator and grade counselor to plan for coaching or remedial assistance.

In the 9th grade, the counselor and the teachers examine the students' grades at the end of the first 6-week marking period. Those with failing grades confer with the counselor and take steps to remedy their weaknesses.

The transition from junior high school to senior high school may be difficult, so much of the 9th-grade guidance effort is devoted to it. In the spring, each 9th grader has a scheduled conference with the guidance counselor to review his 4-year high school program and to decide whether any changes should be made. Margaret, formerly weak in mathematics and interested in nursing, discusses with the counselor the question of alge-

bra which she needs for pre-nursing. On the basis of recent achievement tests and improved work in mathematics, algebra is added to Margaret's 10th-grade program. Aimless Bill now shows some interest and aptitude for engineering. Physics and more mathematics are added to his program.

Toward the end of this last year in junior high, as a part of the guidance program, the high school principal, the 10th-grade counselor, and two senior high students visit each 9th-grade homeroom in the junior high school. The principal talks about the change in terms of the general administration of the school, school policy, the honor system, the student council and the problems new students will face. The counselor talks about courses of study, class work, study habits and how the guidance program will serve them. The high school students talk about the change in the light of their own recent experience in entering senior high.

Within several weeks a parents' meeting is held to discuss the various aspects of the senior high school program. They receive advice on helping their boys and girls develop good study habits. Such things as student behavior, acceptance of responsibility, the honor system, grading and college scholarships are discussed. Ninth grade guidance has been pointed toward the entrance to senior high school.

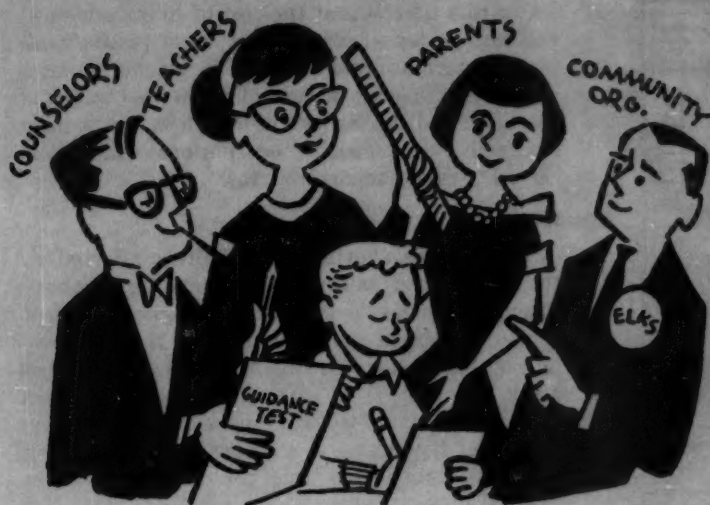
In the 10th grade the first experience with the senior high guidance program comes through a welcoming assembly given by the principal, guidance people and representatives of the student council. The new students are given handbooks, told how to locate the various classrooms and departments and, in general, made to feel welcome.

This meeting is followed by a visit of the 10th-grade counselor to each 10th-grade homeroom, to become acquainted with the new students and explain how the guidance program can serve them.

Parents, still an essential part of the picture, are invited to an evening meeting early in the year. Here the high school program is again explained, bringing in the guidance services, testing program and other related information.

Following the pattern established in the 9th grade, the counselor calls certain individuals to talk about subjects in which they are weak. At the conference each student is given suggestions for improvement.

Career planning is still of importance, so career counseling is instituted. By arrangement with a civic club, a number of men from various professions and occupations talk to 10th-grade homeroom classes about careers in some detail, on a monthly schedule. Each student thus learns more about a number of professions. This is culminated by a career night for parents and students. This whole program is augmented by homeroom discussions of careers based on written pamphlets on occupations.



Guidance is a process comprising many groups of people with competencies in diverse areas

College planning, begun in the 8th grade where high school programs were laid out, must still be revised and considered in the 10th grade. So during the year all 10th graders are given two intelligence or scholastic aptitude tests. These are of value for determining their ability to do college work. Joe, the potential auto mechanic, has consistently improved in his school work. These tests verify what had been suspected before. He is high quality college material. Steps are taken to work out college plans for him.

In the spring of the 10th grade, each student again meets with the counselor and his high school program is reviewed. Course changes are made if advisable. Chemistry, desirable for pre-nursing, had been omitted from Margaret's original course plan because of the mathematics weakness. However, since the counselor now finds that this weakness is being overcome, chemistry is added to Margaret's program by mutual agreement.

By the time students enter the 11th grade the post high school plans of most of them have taken shape, and course revisions are less necessary. However, some pupils still need counseling in this respect.

Special vocational aptitude tests are administered to those students who are uncertain of plans. These help determine aptitudes for specific vocations.

To those 11th graders preparing to enter college, National Merit Scholarship Examinations are offered. These results are used as a means of awarding scholarships to talented students. Counselors make every effort to see that college bound students take this examination, the results of which become valuable counseling information.

Guidance in the senior year is important because it centers on satisfactory completion of high school and on the transition to a job or to post high school study.

The guidance service compiles scholarship information for those seniors with ability who hesitate to enroll in college because of lack of money. Every effort is made to see that no potential college material is lost.

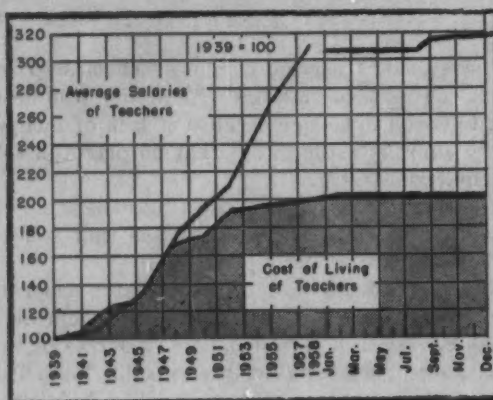
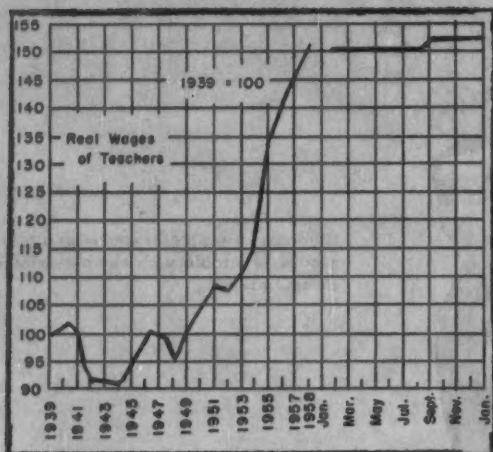
Students are assisted in making college applications. Follow-ups are made to see that college applications are properly processed.

An important function of the guidance program is job placement for those seniors for whom high school education is terminal. The resources of the State Employment Service are valuable here. The 12th-grade counselor arranges for the administration of the Employment Services' battery of tests. This information along with the cumulative information on each student is valuable in determining job aptitude.

Evaluation

The guidance program assists students all along the way, both college-bound and job-bound students. It helps improve the quality of the program for each student. It irons out individual difficulties. It guides students to a satisfactory completion of a high school program. Joe has been guided into college. Margaret has entered nursing school. Carl is studying nuclear physics.

A very considerable amount of time and effort goes into a guidance program. Is this a good investment of valuable time and energy which costs the public money? Was it worthwhile to help Jane stay through high school? Was it profitable to prepare Carl to study nuclear physics? Did society profit by directing Joe's high intellect toward college? The answer to all this must be an emphatic yes! Guidance is necessary! It is the oil in the machinery, the catalyst which transforms the mass effort of present day high school education into an instrument centered on the focal point of our society—the individual.



Teachers' Salaries and the Cost of Living

by HAROLD F. CLARK

Economic Analyst

Teachers College, Columbia University

The slight upward tendency in prices in the past few months has brought about a new high in the cost of living of teachers for January. As there were insignificant changes in dollar wages, this means a small drop in real wages.

Despite this fact, there seems to be almost unanimous agreement that teachers will enjoy a good year from an economic standpoint. The opin-

ion at this time is that the cost of living advances will not be too sharp. Should these prognostications materialize, modest rises in teacher salaries should lead to some increment in the real wages of teachers. A definite move in this direction is most desirable for competing occupations will almost certainly raise their real wages.

The problem for outstanding teachers

The teacher shortage is definitely affected by the question of salary for outstanding teachers. Teacher salaries in general are high enough so that some person can be found to fill a given opening in almost any community. The problem comes about when we try to answer the question, "What level of ability do we want to draw our teachers from?" If the answer is a desire for individuals of superior ability then our problem reaches the acute stage.

Two hundred years ago the academies offered one of the few places where a scholar could make a living and thus they attracted some of the ablest people in the country as teachers. Through most of the last century, colleges still offered one of the most satisfactory ways of life for the scholar. Other opportunities for his skills were few and he found great satisfaction in his academic career.

Today the secondary school can no longer offer pronounced advantages to the scholar. It is doubtful if the colleges can offer really competitive opportunities for most scholars for there are now hundreds of new and challenging occupations with great appeal. Not only are industrial research facilities far better in many cases than those in many colleges but the average salaries are much higher also. The far more serious matter however is that the top salaries are higher in industry than in the secondary schools or the colleges.

Good faculty keeps schools modern

Some individuals feel that the problem is hopeless as far as the teacher's situation is concerned, and urge that the administrative opportunities be made as attractive, and hence, competitive as those in other fields. Yet the basic problem is still there—the schools must have a reasonable number of the very able of each generation to keep the schools up to date.

The one drawback in concentrating on expanding administrative positions arises because some of these positions require many other qualities in addition to scholarship. Well-rounded individuals with these other qualities plus high academic ratings are not easy to come by.

One solution which has merit is to provide special rewards for a few so that some of the most talented individuals in the country will stay in teaching and try for these rewards. Non-monetary compensation should also be given to at least a few outstanding teachers.



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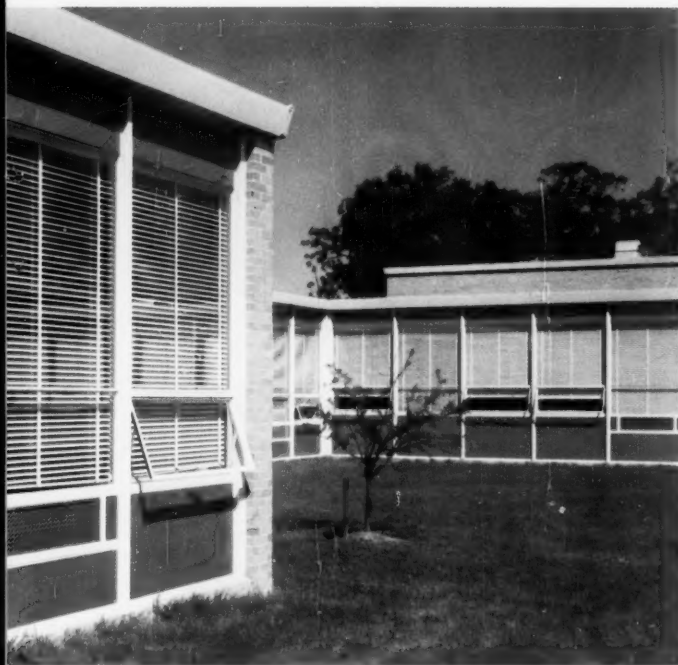
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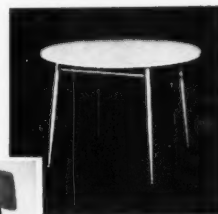
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(Continued from page 17)

do wish that you would at least stick up for your rights."

"You know, mother, life can be so easy in that school if one doesn't cross the man. Fundamentally, I think he means well. I'll bet his wife thinks the school is his whole life. It's just that he doesn't understand how to handle people when he's on the job. Do you remember the faculty party he had at his home last year at Christmas time?"

"Yes, I do," her mother replied, "and you couldn't have asked for a more pleasant host. The whole atmosphere was genial and hospitable, and it seemed he couldn't do too much for his faculty. Yet the very next day, as I remember your telling it, he treated one of the faculty unmercifully for a minor deviation from one of the rules at school. He sort of has a split personality, doesn't he? So what can you do about it?"

"Mind my p's and q's, I suppose," Betty replied, and with that she turned to the supper dishes.

Miss Jackson did mind her p's and q's, but a distinct change became evident in Mr. Radford's attitude toward her. Evidently, the teacher had violated a cardinal rule by questioning the principal's opinion on the matter of class discipline. Miss Jackson recalled a teacher's remark the year before, "You wait until next year—things will be different." Unfortunately, the prophecy was correct.

Mr. Radford began to thwart Miss Jackson at almost every turn. The principal also began to make derogatory

comments about Miss Jackson in the presence of others. At first, the teacher paid little or no attention to the principal's remarks, feeling that by ignoring them, he might soon stop. But Mr. Radford's mind evidently was made up, and Miss Jackson lived through a nightmarish October and November. One day it would be the register that was criticized, the next day it would be the "shoddy" appearance of her room. When the first report cards were entered, Mr. Radford showed great displeasure with the grades Miss Jackson had given and ridiculed her for her leniency. It became obvious that Miss Jackson, like others before her, would leave the Crawford School after having incurred Mr. Radford's displeasure. What had happened before in situations such as this was that the teacher would either be dismissed or be transferred to another school in the system at the end of the school year. Miss Jackson gritted her teeth, hoping that she would be able to last out the year and obtain a transfer.

Early in December, Miss Jackson was taking her class to an assembly program. While waiting to go into the auditorium, she heard Mr. Radford exclaim behind her, "Can't you take better care of your class than this! They are making so much noise one can't hear himself think!"

Miss Jackson turned to him and said without stopping to consider, "Oh, you must be mistaken, Mr. Radford. I'm sure that my class was quiet."

"Now listen here, young lady," the principal replied heatedly, "I don't want any back talk from you. You

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march those kids into the auditorium, and I don't want to hear a peep out of them again. If you can't control them, then I'll sit with them, too."

Miss Jackson suffered through this tirade without saying another word and, feeling that nothing was to be lost, she asked to see Mr. Radford as soon as the children had been sent to lunch. When she went to the office, the principal made Miss Jackson wait 15 minutes before asking Miss Oliver to let her come in. When she had been admitted to the principal's office, the teacher said, "I'm quite upset about this morning's incident in the auditorium. Really, those were not my students who were causing the trouble. However, the thing that bothers me more than anything else is that you reprimanded me in front of my own class. I'd appreciate it very much if you wouldn't do that."

Mr. Radford flushed and said, "I think that I've had just about enough of you. I had great hopes that you would like it here, and the Lord knows that I've tried everything in my power to help you. Evidently you and I cannot get along, and I'm going to recommend to the boss that you be dismissed at the end of the year. That means, of course, that you will not be considered for tenure."

Miss Jackson felt anger mounting within her and she said, "I wonder if you could be a little more explicit and tell me just what it is I'm doing that is wrong."

"Never mind that, young lady. I don't have to account to you for my actions. I simply will not stand for this type of back talk. Now you get right back to your job and tend to business."

At this point, Miss Jackson completely lost control of herself, and burst into tears. The principal merely remarked, "I wish you would stop that sniveling and get out of my office. I think I've had enough of this for one day."

Suddenly Miss Jackson very quietly said, "So have I. I'm leaving."

"What do you mean?" the startled principal asked.

"Just that," the teacher replied, and turned and walked out of the office.

Late that afternoon, Dr. Franklin, superintendent of schools, came to see Mr. Radford. "I hear you had some trouble with Miss Jackson. She was with me most of the afternoon. Were you able to get a substitute for the class?"

"Yes, I was," Mr. Radford replied. "All I've got to say is 'good riddance.'"

"I am afraid it's not as easy as all that," the superintendent said wryly. "Miss Jackson says she has nothing to lose by going to the teachers association and setting her case before them. They've threatened to step in when you've had problems before. I think this time they will really go to town. Of course, there is nothing I can do about it if that is what they decide to do. On the other hand, I could try to persuade Miss Jackson to come back to you. What do you think?"

Question: What would be your solution to this case?

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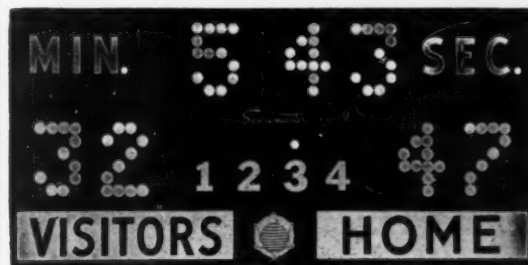
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WASHINGTON SCENE

news from the capital affecting education

Education and the Special Objective

NOT SINCE 1857 has concern for education more thoroughly pervaded the Washington scene. It was in that year that Vermont Senator Justin Smith Morrill introduced a bill to

grant lands from the public domain to aid in the establishment of institutions to be employed largely for the advancement of the nation's agriculture.

The bill finally passed Congress and was signed by President Abraham Lincoln in 1862, but not until floods of oratory had thundered across the aisles of the Senate chamber. There were lawyers in that body, and representatives of other occupations. Why should the Federal Government create schools devoted solely to the training of farmers? The question of whether the Federal Government should aid education at all was hardly an issue. The concern for education then, as it is now, was chiefly over the purposes which education was to serve. Perhaps that was as it should have been. Final judgment rested, then as now, upon how widely the special objectives supported served the nation as a whole.

In 1862, the United States was an agricultural nation. Anyhow, the farmers were in the majority. They got their agricultural colleges.

Today, nearly a hundred years later, the Federal Government again is giving its support to a special objective of education. The first transference from the \$887 million National Defense Education Act will go towards strengthening instruction in science and mathematics and kindred skills and arts needed for our national defense.

Supervision or administration?

Controversies over the Act of 1958 are "after the fact," and have to do with the focus of administration and control rather than with the objective. Everybody believes in national defense. There have been some protests that state offices are being bypassed, and that the federal staff administering the Act goes directly to the individual schools or districts. The frequent announcements from the Office of Education that another expert supervisor has been added as a consultant to a division of the staff administering the supervisor's specialty has led many to believe that

SE-224

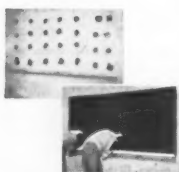
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the Office intends to supervise the projects instituted as well as to administer the funds for instituting them. Protestations and observations have conjured up the spectre of "federal control." State offices in general, however, report the strong determination of the Office of Education, and of the Department of Health, Education and Welfare, to leave the responsibility for educational programs of the Act in the hands of local school authorities, and to leave inviolate the traditional doctrine of local control. Those who are responsible for disbursement of funds, and for legal interpretations of the Act's provisions, may not be as sensible to this traditional doctrine as are the educational staffs of the HEW, but there have been reported, as yet, few differences that could be called hopelessly unresolved.

Title I of the Act itself states: "The Congress reaffirms the principle and declares that the states and local communities have and must retain control over and primary responsibility for public education . . ."

Insistent demands from other sources that responsibility for education should rest in federal hands could be more alarming.

Jerrold R. Zacharias, director of the MIT Laboratory for Nuclear Science, at a science and labor conference held here in Washington, proposed creation of a three-man federal committee to pin down responsibility for "upgrading" scientific education. At the same conference, Walter P. Reuther, who heads the Industrial Union Department of the AFL-CIO, advocated a permanent citizens' committee operating on a national basis to assign priorities to the most vital tasks facing the United States, such as improving education and school facilities.

Vice Admiral H. G. Rickover, who administers the staff here which planned and built the Nautilus, has just released a book entitled *Education and Freedom*, in which he has proposed that 25 demonstration high schools be set up and operated as

March, 1959



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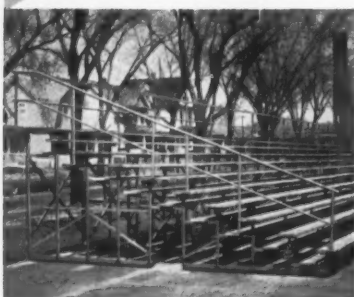


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WASHINGTON SCENE

models for high schools throughout the Nation. He further proposes national standards in the training of teachers and the character of education in general, and the creation of a national agency to enforce such standards.

At a recent National Press Club luncheon, President Eisenhower pointed to the country's need for higher educational standards, and expressed his determination to appoint a committee of representative citizens to set up goals which would become national standards for education.

Quality or uniformity?

If "higher standards," as used by these and many others from diverse areas of American life, mean higher quality and not nationwide uniformity, they will be endorsed universally by educators. The Nation is not without its demonstration schools already—nearly every teacher-preparation institution has one—and there are recognized agencies of long standing whose function it is to accredit the certification of teachers and the standing of educational institutions. They operate on a voluntary basis and are not likely to court dictation from governmental authority, nor to assume dictatorial authority for themselves.

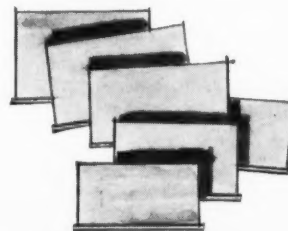
Recognizing that the present public concern over the schools is based upon a new sense of the relationship between the quality of education and the future of America, the Educational Policies Commission of the NEA and the AASA have just released "An Essay on Quality in Public Education," which begins with a protest against standards that are uniform and universally applicable.

"The best education is that which does most to enable each student to develop his abilities and to serve society," the essay states. "Education must therefore be appropriate to the needs of each pupil and to the needs of society. But students are individuals, student bodies are constantly renewed, and society is ever-chang-

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ing. It follows that education must be dynamic and diverse. High quality in education implies never-ending adaptation and improvement."

"There is no simple test of quality," says Virgil M. Hancher, president of the State University of Iowa, and chairman of the Educational Policies Commission, "but there are two certain essentials without which quality cannot be obtained."

The first essential named by the Commission is optimum size of school staff. The Commission's Essay estimates that there should be at least one professional to every 20 pupils.

The second essential: minimum teacher salary. "An adequate starting salary is one which is reasonably competitive with those of other professional occupations and other teaching positions open to the candidates. The rate of advancement should assure a career teacher at least double his starting salary within ten years, and increments beyond."

The third essential: minimum cost. Recommended: "Annual per pupil expenditure about 12 percent of the salary necessary to employ a qualified teacher in that district." This, at present, would be about \$540 per pupil, the Commission estimates.

The Commission also makes recommendations for the secondary curriculum. These recommendations by no means emphasize science and mathematics as special objectives, but include, along with a rich program in those studies, music, art, literature, history and at least one foreign language.

The new Murray-Metcalf bill "to provide financial assistance for the support of public schools by appropriating funds for the States to be used for constructing school facilities and for teachers' salaries" also casts a spotlight on general education. The Senate version, S.2, introduced by Senator James E. Murray (D.-Montana), is co-sponsored by 26 other Senators representing both political parties. House bill, H. R. 22, was introduced by Congressman Lee Metcalf (D.-Montana.)

March, 1959

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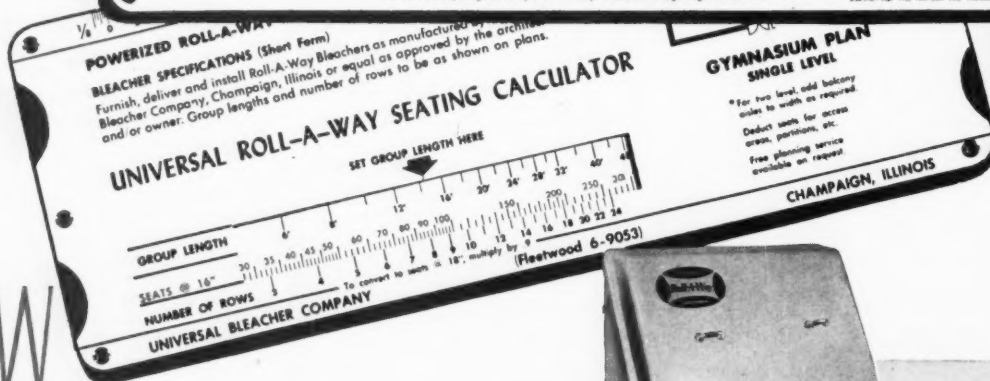
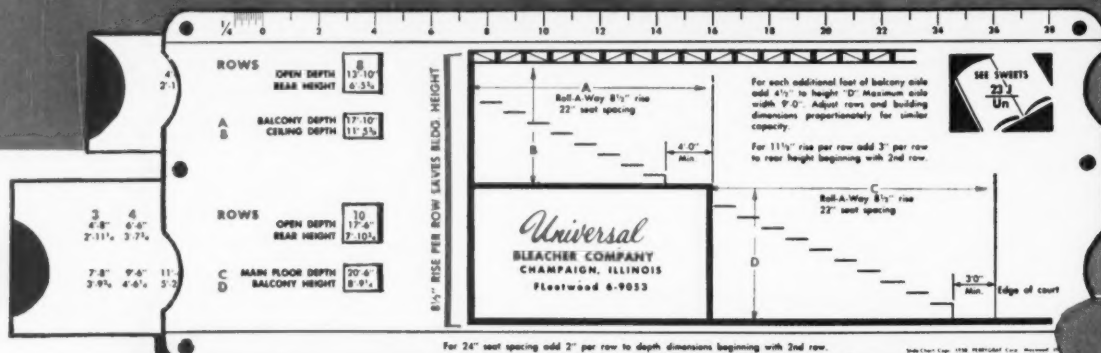
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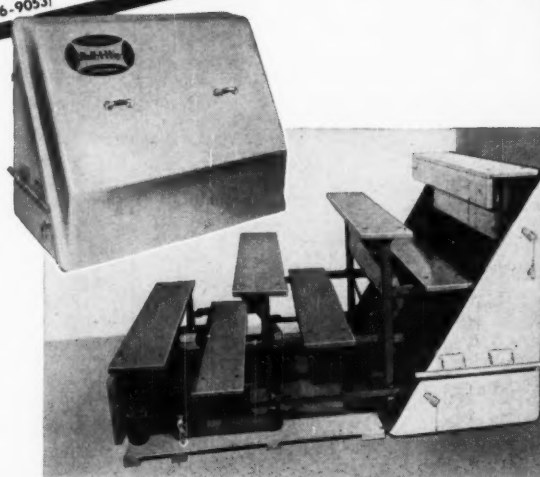
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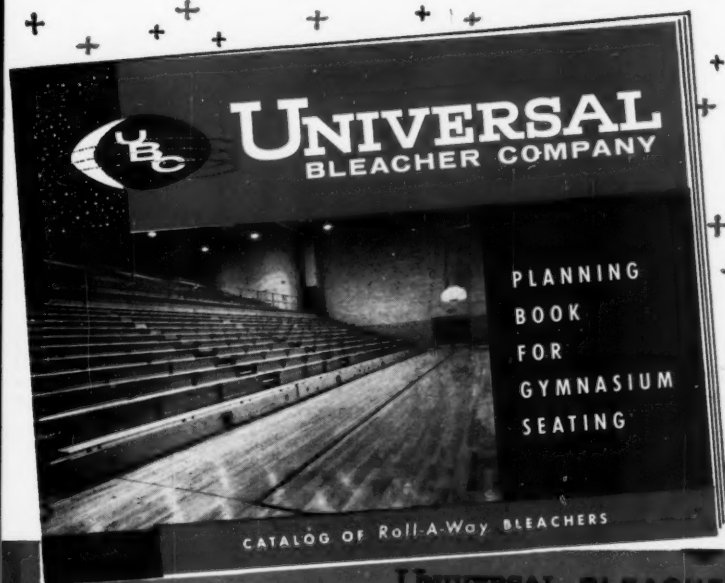


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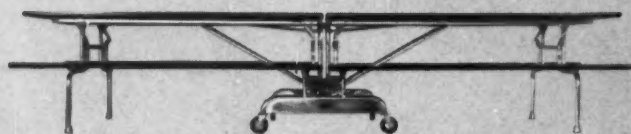
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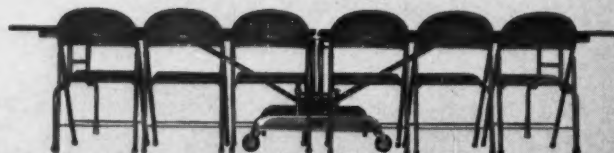
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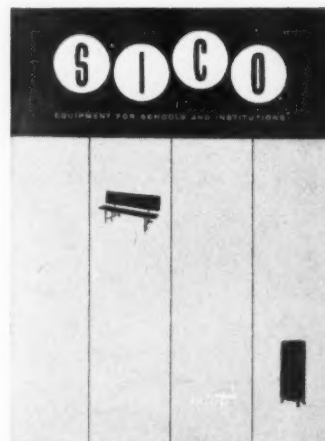
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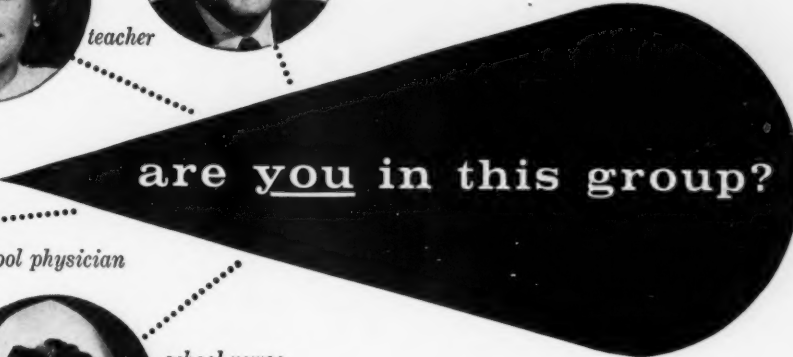
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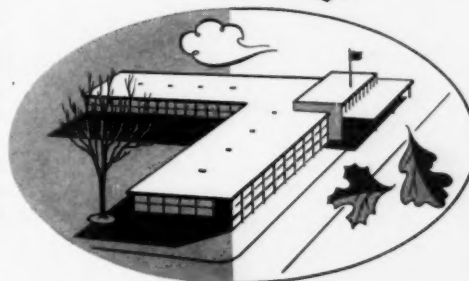
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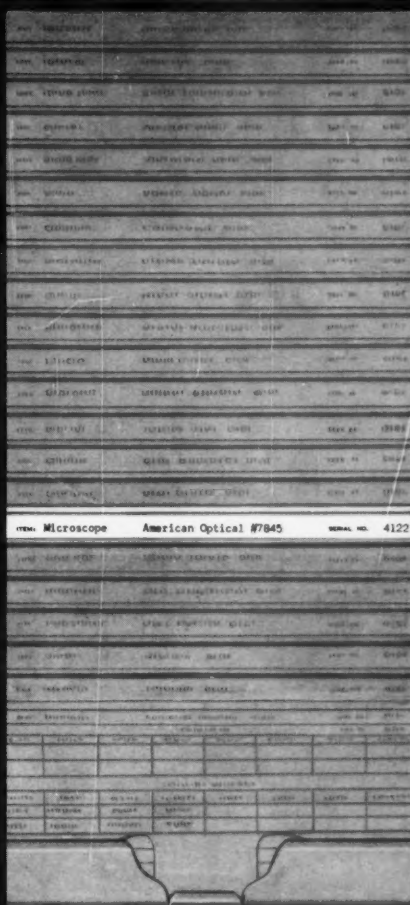
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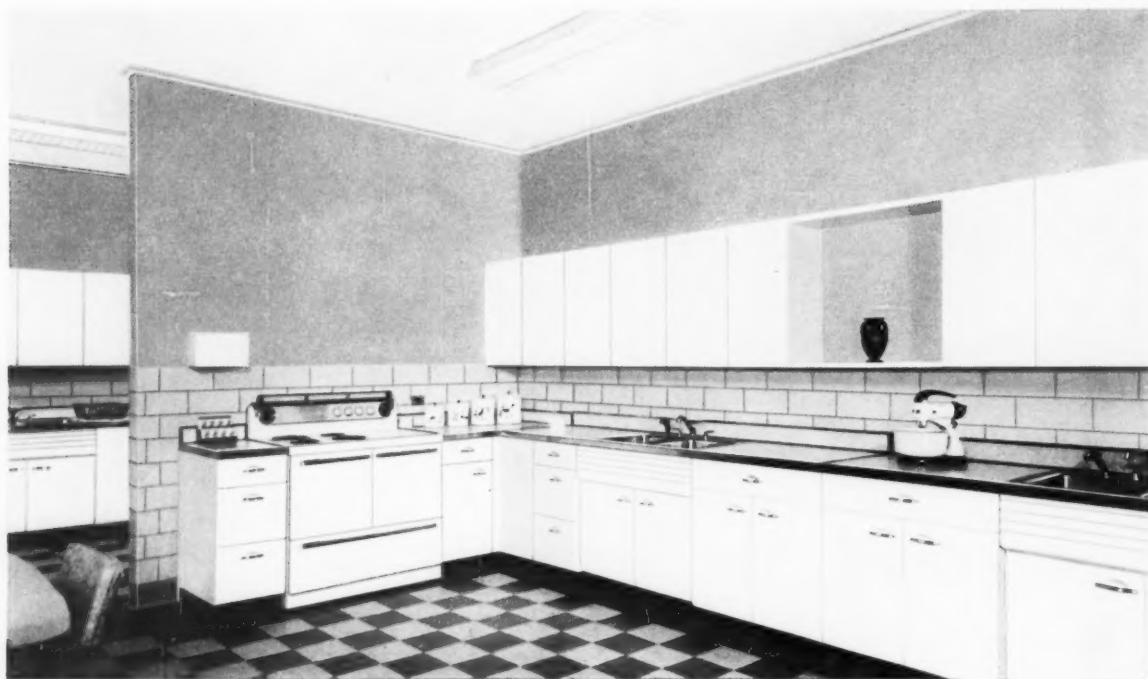
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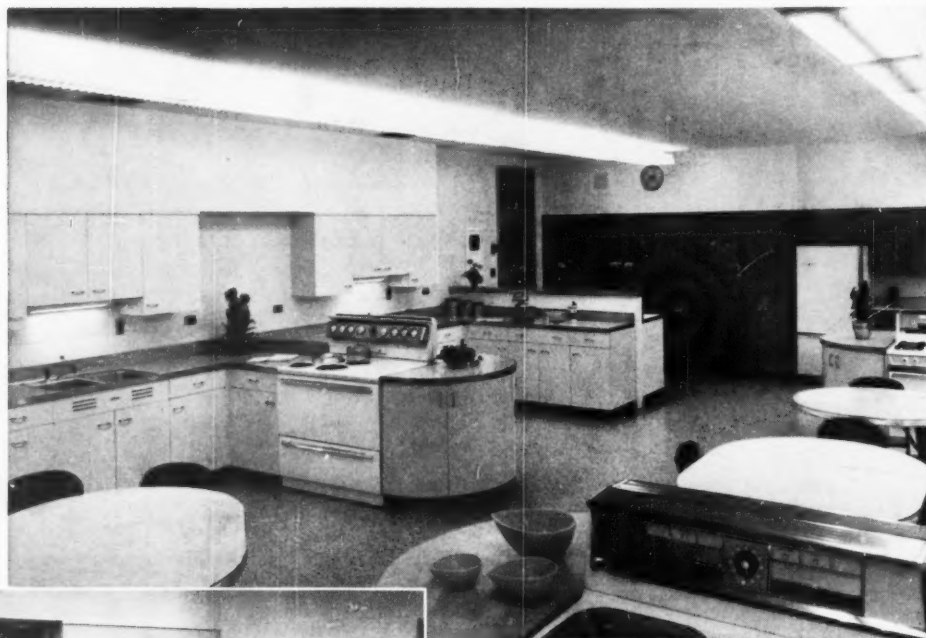
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Year-round Climate Control

Air conditioning: the simultaneous control of temperature, humidity and air motion within a structure. The following five articles describe its advantages for school interiors

Case study of an air-conditioned high school

by FRANCIS E. MORHOUS



INTON HIGH SCHOOL, Schenectady's new \$5½ million educational plant, was planned and financed by the community which, as the home city of General Electric Co., stands behind that industrial giant's famous slogan "Progress is Our Most Important Product."

Consequently, it is no wonder that the staff of Schenectady's public schools, together with a wide representation of the city's residents, implemented the injunction of the late Harry J. Linton, then superintendent of schools, to attempt to realize a structure which would "still be functional in the year 2000."

In working out plans for the one-story, school-within-a-school design of the comprehensive high school, which includes a quarter million square feet located on a 37-acre plot, not only the desirability, but the virtual necessity of air conditioning portions of the new plant became obvious.

Planners conceived that the group of buildings should be highly flexible not only to facilitate, but almost to demand by their mode of construction, that the educational program keep up with the times.

This was achieved in Linton. A modern program, elastic and even experimental along numerous lines, has

evolved. Undertaken, of course, as a result of staff initiative, such a "future-oriented" program would have been impossible without the receptive organization of the plant.

Among Linton's functional advantages are separate areas for various types of studies: academic, vocational, laboratory, etc. Resource rooms, located adjacent to regular classrooms, offer students a place to learn by experiencing. The cafeteria and gymnasium can be closed off from the remainder of the school for use by community groups. The air-conditioning system facilitates such use by being constructed to operate in the auditorium.

Generally, however, the system treats air only for the core-techs building and the library. Conditioning of air for the auditorium is obtained by shutting off these sections and redirecting the flow.

The core-techs building contains six distinct areas: trade shops, science facilities, art rooms, family living suite, commerce classrooms and the administrative section. All of these sections, except the trade shops, are air conditioned.

Since 80 percent of this instructional space in the core-techs building is "in-board" (the exposure is entirely internal) lighting and ventilation problems had to be solved.

After considering all of the factors involved, including

Dr. Francis E. Morhous is principal of the Linton High School in Schenectady, New York.

the necessity of providing adequate lighting for a large adult education program, the architects (Perkins & Will, Chicago and White Plains, and Ryder & Link, Schenectady) studied the cost of adding a central refrigeration cooling system to the mechanical ventilation system basically required for this "in-board" section. As a result of this study, a year-round air-conditioning system was installed on an individual zone control basis.

Each group of classrooms in the core-techs building is provided with a separate air handling system. These systems each contain outdoor as well as recirculated air controlled by automatic percentage proportioning controls. This air is flowed through an automatic self-cleaning air filter of the viscous fluid impingement type, a chilled water cooling coil with 3-way water valve and face, and a by-pass hot water blast coil.

Zone ducts distribute air to conventional ceiling diffusers in the classrooms. Return air is passed through louvers in classroom doors and it is then returned to the system via air grilles in the corridor ceiling or is expelled through roof-type gravity relief ventilators.

All of the various air conditioning and ventilating systems are controlled from a central temperature control panel. The operating engineer can transfer the system from the "day" to the "night" cycle of operation. The system also may be switched in similar fashion from "summer" to "winter" functioning.

The plant consists of a 235-ton hermetic centrifugal compressor, an induced draft cooling tower, a condenser water circulating system and a chilled water circulating system. The central plant can meet the requirements of the core-techs building and the library simultaneously, and the system is piped to permit air conditioning of the auditorium when the classrooms of the core-techs building are not in use.

Linton High School has been occupied by a student body of 1,500 since April, 1958. Although this makes our experience with air conditioning somewhat limited time-wise, we have an unlimited number of individual reactions. Since the student spends almost half of his wak-

ing hours in school, the effect of air conditioning on his general health is a prime concern. A classroom in the core-techs section means that there is dust-and-pollen-free fresh air, and temperature control.

The school nurse feels that, as a result, there is less absenteeism from allergies and colds. The provision of fresh air and adequate ventilation ends the problems of open windows or stale air which plagued the teacher in the traditional schoolroom. The students themselves emphasize this when they remark that they don't like to move from the air-conditioned rooms to the conventional ones because the latter seem "stuffy."

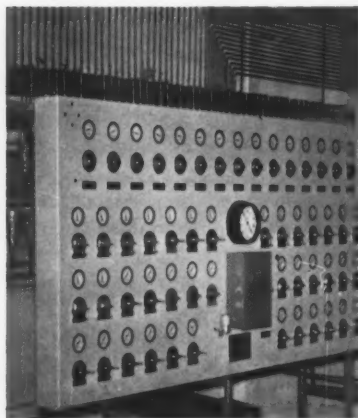
In a classroom where the humidity and temperature are controlled, both teachers and pupils are more comfortable and subject to less distraction. Attitudes also seem to improve, thus creating a situation more conducive to serious thinking and increased achievement.

Also those pupils who were prone to drowsiness when the windows were closed and the shades drawn for audio-visual presentations, are freed from these lethargic effects and view films and slides with interest and comfort.

With the rising cost of education a controversial issue in every community, economy is a key factor in deciding to air condition a new school plant. In a plant such as Linton, an available inexpensive land site may be purchased because the construction is "out" rather than "up," eliminating the cost of 2-story structures which necessitate stairways and permitting the use of buildings such as the core-techs unit, with its flat roof and tremendous "in-board" space.

Economy of operation results from use of the central temperature control panel. There the air-conditioning system can be transferred to "winter" operation and to "night" cycle. On the "night" cycle during the heating season, all ventilating systems are shut down and buildings are maintained at reduced temperature. The ventilating systems will, when necessary, operate "start-stop" at 100 percent recirculation on this cycle to assist in maintaining minimum heating temperatures. The hot water heating system operates continuously for all out-

Linton's "in-board" unit:



Master control board



Printing trades shop



Secretarial practice rooms

door temperatures below 65° F, and the water temperatures are automatically varied in inverse ratio to outdoor readings. During the "night" heating cycle, all radiation is controlled to a reduced night level of 65°.

Custodians find the air-conditioned buildings at the new high school are easier to clean because the filters reduce dirt accumulation. Over a period of time this factor should substantially cut the costs of maintenance and redecoration.

Linton High School could not have been built without the cooperation and sacrifices of numberless dedicated citizens; the use of its facilities by the community was a matter of concern in planning. Air conditioning the auditorium, library and classrooms of the core-techs unit extends the comfortable use of these portions of the building even during the summer months. In 1958, summer school was held for the first time at Linton and the enrollment reached a peak of 1,700 students. The adult education program, an extensive one in Schenectady, can continue its sessions in May and June with fewer drop-outs and an increased attainment of educational goals for more citizens. Furthermore, when various organizations and groups use the auditorium for meetings, more members of the community become acquainted with the school and its program and their interest and support are stimulated.

Reports from the classroom

The comments of the teachers who use the classrooms in the air-conditioned building are enlightening. The home economics teachers find that all the stoves in the food labs may now be used at one time without overheating the rooms, that cooking odors are reduced, and that the washer and dryer can be operated simultaneously without the accumulation of moisture on the windows. With more efficient ventilation in the art department, paint spray is used with less disagreeable effects and an improved atmosphere for creative effort ensues. The science teachers report that exhaust fumes are now controlled in experiments and the laboratories are relatively

free from static electricity. The biology laboratory, possible only with air conditioning, provides first-hand daily experiences as the pupils themselves carry out experiments, tend the plants and watch the miracle of growth.

Our limited experience has also exposed definite problems that must be solved with air conditioning; these must be weighed against the advantages in considering the installation of air conditioning in a new school plant. For one thing, a high degree of specialized and technical knowledge is required to maintain and keep the air conditioning units working properly. As in all mechanical operations, belts wear out, motor failures occur, and attempts to make adjustments by an unskilled person can easily throw the system out of balance. The custodians feel that only trained specialists are competent to service and repair the mechanism, especially since it is complicated and new to them.

Several teachers have complained of drafts. Here we have the factor of individual reaction to temperature changes—forever uncontrollable! Actually, some rooms may require more cool air to maintain the same temperature than do others of the same size because of heat gains from occupancy, artificial illumination and solar radiation.

For instance in outside rooms which are exposed to the sun, the temperature may rise above that set by the zone control thermostat because the air conditioning unit cannot compensate for the heat generated by solar radiation. This happens in my own office when, at certain times of the day, the sun shines through the glass windows and their diffusion drapes. The room warms up faster than a cooling unit can reduce the temperature in the office, without at the same time reducing the temperature in adjacent offices to an uncomfortable degree. Certain rooms set for 72° cannot hold that constant in the face of rapid external temperature changes. Then, too, an unseasonably warm day in fall or spring may result in an overheated room because the cooling system is usually turned off during the seasons when the outside temperature is likely to fall below freezing, and



Social psychology classroom



Biology classroom with greenhouse

air taken from the outside at 70° will not remain that cool while being distributed unless the cooling system is functioning.

Certainly air conditioning in a school plant in the South would be almost a necessity. Even here, in our temperate climate, I would recommend that air conditioning be installed if at all feasible.

However, there are two prime considerations which have been reflected above:

1. That the design and installation, as at Linton, be carried out by experts in those fields. This measure is a safeguard because improper design, installation and maintenance could result in failure of the system on a

hot, humid day in a classroom where air conditioning is a part of the basic design.

2. Our experience has indicated that air conditioning may most effectively be installed on an individual room control basis. Although the zone control system in Linton is less expensive, because of its diminished distributive footage, I feel that the advantages received in terms of pupil-teacher concentration to the educational task is worth the additional cost of individual room control.

A plant alone does not make a school, but modern equipment certainly provides advantages which facilitate the preparation of a good program. Air conditioning serves to further these advantages.

An architect designs with air conditioning

by WILLIAM M. PENA
and JOSEPH B. THOMAS



THE ARCHITECT must look on year-round air conditioning as another means at his disposal to solve his client's problems. What then are some of the problems air conditioning can solve?

Thermal comfort

The first problem that comes to mind is that of comfort. It is also the most widely discussed—and many times, ignored. We know that our schools must provide a comfortable thermal environment if they are to serve the learning process of children. And we know that thermal comfort depends on a delicate balance of interacting factors involving temperature, humidity and air movement. Air conditioning can provide this balance.

Well now, one may ask, haven't we provided a fairly good thermal environment in our schools without year round air conditioning? No doubt we have—within the limits of our budgets, competence and knowledge of climatic conditions. Admitting that our heating systems are excellent, our attempts to cool classrooms certainly are not perfect. Cool, dry air must be introduced to maintain a desired temperature-humidity condition. No system strictly for ventilation assures us that the outside air used will be cool and dry. And while mechanically forced ventilation assures us the required air movement,

natural ventilation systems depend on the whims of nature.

Dust control

Schools in hot, dry climates most often have the additional problem of dust control, resulting in abnormally high maintenance costs. Natural cross ventilation brings in air-borne dust. Evaporative cooling has been successful in these areas since dust is minimized and the inside temperature is lowered. Refrigerated air conditioning is still a more positive solution.

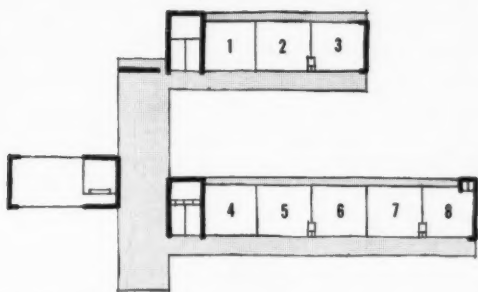
Sound control

Our first air-conditioned elementary school was located in a hot, dry climate, although we installed conditioning to solve a specific problem of noise rather than to control temperature, humidity or dust. The school was to be close to the flight pattern of a nearby air field. Along with shutting out the noise, closed windows also shut out the breezes. Air conditioning was one solution to the problem.

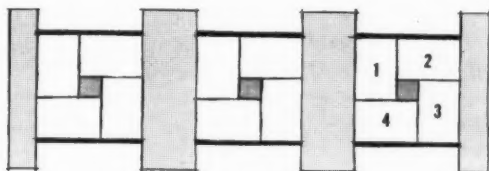
Light control

The increased use of visual aids in the classroom will focus more attention on lighting and ventilation problems. The physical environment requirements involve subdued light and proper ventilation. What we need to do is to separate the traditional functions of windows—light, view and air—and to provide a controlled environ-

Mr. Pena is a principal in Caudill, Rowlett and Scott, Architects, Houston, Oklahoma City and Corning, New York. Mr. Thomas is a mechanical engineer in the firm.



In planning with natural ventilation in mind, the tendency is to string out rows of classrooms such as in the finger plan above. However, within limits, compact schemes are feasible.



Diagrammatic plan shows a scheme used to solve the problems of dust and classroom view control. Each compact grouping of four classrooms has a central mechanical core containing toilets and cooling equipment.

ment. Lighting can be controlled electrically, and the view can be controlled by minimum, glare-reducing, low transmission glass. What about ventilation? This can be provided by mechanical or even natural ventilation with enough imagination; however, air conditioning still provides us with the most positive control.

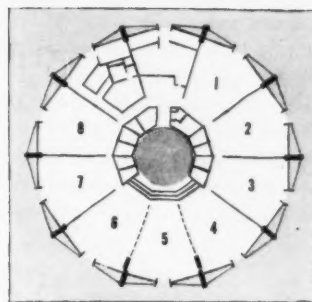
Plan types

One of the significant break-throughs in school design occurred when school planners began to realize that they had numerous plan types, such as finger plans, quadruplexes, back-to-back arrangements, and double- and single-loaded corridors at their disposal to solve their problems. Air conditioning makes possible still more arrangements, particularly in the realm of compact groupings of classrooms. In other words, school planners can now determine the plan arrangement which would best implement the educational program without being limited by problems of ventilation and lighting.

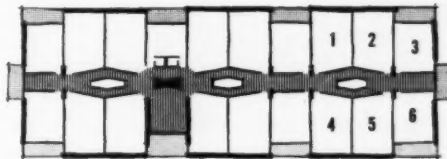
Once the decision is made to air condition a new school, full advantage must be taken of the freedom of planning it offers. This freedom may be expressed in terms of deep spaces in a building, a release from orientation for the prevailing breeze, or even in the location of buildings on the site.

Economy

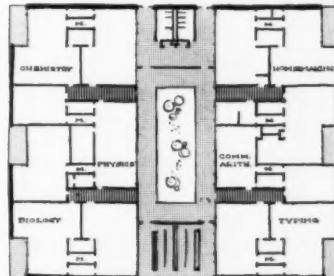
Any principle that leads to economy and efficiency must be considered. Air conditioning calls for compact-



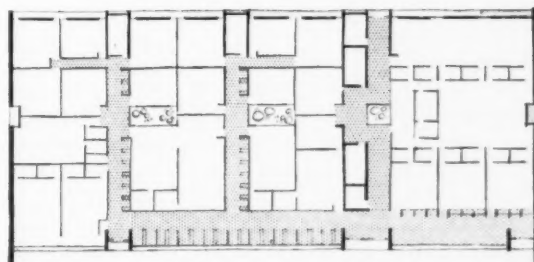
Air conditioning solved a problem of extraneous sound in the school which was to be located close to the flight pattern of a nearby airfield.



With air conditioning, the functions of the traditional window (to provide light, air and view) can be separated. In this plan, glare-reducing glass is used for view only. Each cluster of six classrooms is served by one mechanical unit in the corridor.



With air conditioning, spaces deep within the building are feasible. In this plan, two are joined together by covered corridors and the locker area to form an interior court.



The plan above is characterized by the deep spaces resulting from its compactness, and relieved by interior view courts. Here air conditioning allows more freedom to plan.

ness of building units. For cooling as well as for heating, the fewer exterior walls the better; exterior walls cost more than interior partitions. Glass areas should be protected from the sun and used for view, not for light. Operating window sashes are not necessary. Glass areas and top light bubbles should be used with discretion.

Because of these considerations, some may say that air conditioning limits planning. We say it opens new approaches to planning.

Future conditioning

Can we plan now for our new schools to be air conditioned in the future? Of course we can size the ducts properly in anticipation, but this by itself is not good planning with air conditioning in mind. It is merely planning for a future adaptation. "Planning *for*" air conditioning only sets up performance criteria. "Planning *with*" air conditioning establishes the process as a tool in forming basic design concepts. The basic concepts behind a school designed for natural ventilation may be in conflict with those behind an air-conditioned school. Most often, when a building is planned for future air conditioning, it is impossible to take full advantage of the initial economies and the problem-solving possibilities attendant with air conditioning specifically in mind.

Cost

What about cost? To start with we must assume that the total system for heating and cooling will cost more

than a good heating system . . . say, 75 cents to \$1.00 per square foot more in some parts of the country (not that this means anything to anybody). Cooling systems don't come *gratis*, although it would appear that such was the case in our first air-conditioned school—thanks to the hard work and planning of our associate. Planning techniques and local climatic conditions which can lead to economies with air conditioning must be carefully studied in the preparation stage.

Various states have ventilation laws and codes which affect cost. If these could be revised to a more logical situation we could air condition schools in those states for about the same money as used now for heating and ventilating.

Savings can be made with a planned space program for the hot months when the total facilities may not need to be used. For example, the tendency is to design for maximum loads on the total structure when actually the maximum is seldom reached.

We will not try to justify the initial and operating costs of air conditioning. Those interested in quality schools will understand this. Those not interested will say they can't afford it anyway. However, these things must be considered as advantages: higher attendance, lower maintenance costs and greater efficiency and comfort of teachers and pupils.

These advantages speak for themselves as do the figures which show an increasing number of schools installing this equipment which blows hot and/or cold.

Requirements of air-conditioning installations



LIKE THE man who discovered, to his astonishment, that he had been speaking prose all his life, people in the school field possess an unsuspected fund of experience in school air conditioning.

If by air conditioning we mean preventing rooms from overheating by supplying them with cool air (which is the way summer air conditioning works), many schoolrooms are also "air conditioned" in wintertime, when the combined effect of body heat, lighting systems and/or the sun might otherwise cause overheating. Such cooling may take the primitive form of simply opening the windows—in which case it will have, in very cold weather, some of the defects of an extremely poor, drafty air-conditioning system. On the other hand, winter cooling

by HENRY WRIGHT

may take the form of mechanical ventilation, with cool air introduced at a sufficient velocity and in such a manner to assure its thorough pre-mixing with overheated room air, so that there is no awareness that cool air is entering. In summer, this result is the objective of air conditioning at its best.

Technically, the problem of blowing enough cool air into a schoolroom to prevent overheating without causing drafts is almost the same in winter as in summer. Optimum performance is, if anything, harder to achieve in winter, since various surfaces—notably the windows—may further reduce the temperature of the admitted air and increase the likelihood of drafts. The only thing that is simpler about winter "air conditioning" is procuring the cold air, which may be had free of charge from the out-of-doors. In summer, the "coolness" of the air must be manufactured. Therefore, ventilation is identical

Mr. Wright is technical consultant for School Air Systems Division, American Air Filter Co., Inc.

with summer air conditioning except for the *source* of the cool air.

When we manufacture warmth—that is, add heat to the air in a schoolroom in wintertime—we can ordinarily keep the humidity within acceptable limits simply by adding a small amount of dry outdoor air. In hot weather the outdoor air contains a great deal of moisture and is no longer useful in counteracting the effect of the moisture given off by the pupils; dehumidification is necessary. This is accomplished by cooling the air considerably below the ultimately desired temperature, to wring out excess moisture. The ability of an air-conditioning system to do this without overcooling the room, especially in humid and moderately hot weather, is an important element in the quality of the result produced. In schoolrooms where the internal “moisture gain” is high, this is of particular importance. In other respects, however, the manner in which the air is cooled matters little to the pupil or teacher; the way in which it is distributed matters more.

Air conditioning is at its best when we are unaware of it. This can happen only when the cooling air is so thoroughly and evenly distributed that it accomplishes its purpose imperceptibly. Any system of school ventilation capable of cooling a crowded, sun-filled room in cold weather without causing discomfort will by the same means—the introduction of cool air in the same “circulation pattern”—be capable of producing a highly satisfactory result in hot weather. The things that are unique about the schoolroom cooling problem—the size of the classroom, the density of its occupancy, its daytime use—create the same problems summer and winter.

What ideal conditioning provides

Since most teachers and school officials have a good deal of experience with winter cooling, they are by way of being “experts” on the subject of school air conditioning, even though they may never have spent a day in an air-conditioned classroom. The danger is that because of the presumed novelty of refrigeration cooling in schools they will not recognize the relevance of this considerable experience to the problems of hot weather classroom cooling.

The ideal school air-conditioning system first of all should provide for the needs of wintertime school ventilation. These include:

1. Provision of sufficient outdoor air at all times to prevent odor formation and to control wintertime humidity.
2. Provision of additional outdoor air, often in lavish quantities, to prevent cold-weather overheating—with the proviso that the air introduced for cooling be pre-mixed with room air so as not to enter the room at too low a temperature.

As already mentioned, it is all important that the distribution of such cooling air be accomplished without creating uncomfortable drafts. If the method of wintertime ventilation employed is to satisfy these requirements, then all that is needed to complete a good school air-conditioning system is a means for cooling and drying

Air conditioning is the simultaneous control of all, or at least the first three, of the following factors affecting the atmosphere within a structure: temperature, humidity, motion, distribution, pressure, dust, bacteria and odors.

For much of the school year, any good system of schoolroom heating and ventilation provides “simultaneous control” of these factors, but it does not qualify as “air conditioning” if it does not supply artificially-cooled air.

Wintertime ventilation is cooling with cool outdoor air. Given the means for manufacturing cool air, such as chilled water, any good system of wintertime ventilation becomes an air conditioning system.

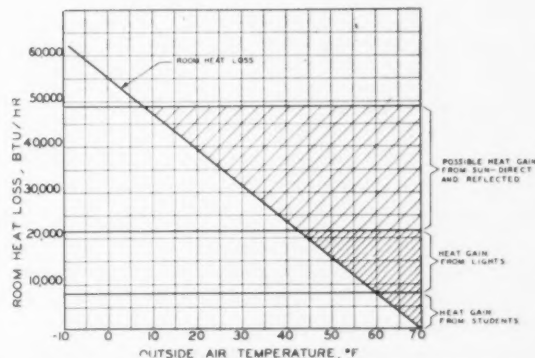
Thus, wintertime ventilation equals wintertime cooling, whereas summertime cooling equals air conditioning.

the air supplied to the rooms in summer. In fact, this is usually all that is needed to convert a really adequate system of wintertime ventilation to the function of year-round air conditioning. Proper wintertime ventilation and warm-weather refrigeration cooling of schools are distinctly “compatible.”

The unit ventilator (usually a cabinet beneath the window) is widely used in schools for winter ventilation and heating. If its heating element is replaced by an element for chilled-water cooling and hot water heating, and a pan is attached for catching hot weather moisture, this would be a good summer air conditioner, too.

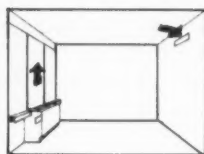
The refrigeration compressors are the most costly part of summer cooling systems. It is easy and inexpensive, by this method of adding summer cooling to existing setups, to provide for future air conditioning in new schools which do not have the budget to install a complete system immediately.

Thus, in the case of new schools where adequate provision for wintertime ventilation is needed anyway, there

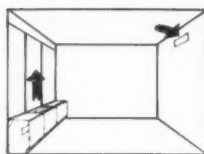


Room heat loss and uncontrolled heat gains plotted to show reason for overheating of classrooms. During the day, a classroom is more likely to require cooling than heating, even in very cold weather.

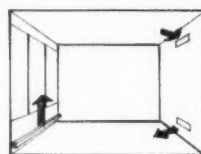
Type
of
unit



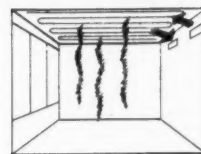
Unit ventilator for under-window installation is equipped with finned tube extensions; it draws outdoor air through louvers, heats and distributes it about the room by means of fans; the exhaust air is carried off by corridor ceiling ducts



Unit ventilator under windows with added chilled water lines to the central compressor room for the purpose of summer cooling



Finned baseboard convector goes across outer wall near the floor, warms air by convecting surfaces, as diagrammed—rises and goes across the room



Prefabricated metal units make up the ceiling and have pipeways for a 2-pipe hot water system; air enters and is drawn off by ducts

Does it
ventilate and
filter air?

Yes

Yes

Yes

Yes

Does it
control
temperature?

Good in all seasons

Good in all seasons

Fair in all seasons

Good in all seasons

Does it
convert to
summer cooling?

No, except for forced
air circulation

Yes

Yes, but only if ducts
and piping are insu-
lated and special
drainage system is
provided in original
installation

Yes, but only if ducts
and piping are insu-
lated and special
drainage system is
provided in original
installation

Standard classroom units which ventilate and filter air, control room temperature and convert to summer cooling

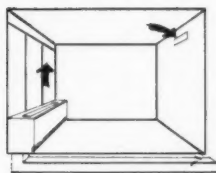
is little reason to consider the "sketchier" forms of summer air conditioning which have achieved widespread use in the residential and commercial fields. The school-room cooling problem is not such that it lends itself to the solution of one or two room-coolers placed in the windows, nor is there any need to approach the problem in this way when one or another type of ventilating equipment already exists.

In new construction, mechanical ventilation of both the central fan or unitary type can be installed so that the addition of refrigeration cooling at a later date is a simple matter; and, by the same token, such systems can readily be equipped for warm-weather cooling at the outset. Existing central fan systems may have air conditioning added in a form that utilizes the same air distribution ducts to get the cool air to the classroom in warm weather and cold. Existing unit ventilator systems must be equipped with cooling type coils, insulated piping and some method of condensate drainage when refrigeration cooling is added.

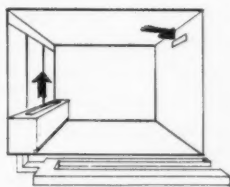
In the case of existing schools not equipped with me-

chanical ventilation, self-contained air conditioners of the type used in small shops should be considered. Thus, where no mechanical ventilation is provided, self-contained units capable of serving one or two rooms may be spotted throughout the school for warm-weather cooling purposes; such units are also well adapted to the air conditioning of administrative areas. With the exception of such areas, it is doubtful that the use of this type of equipment is warranted in new school construction where the more efficient option of combining warm-weather cooling with mechanical winter ventilating equipment remains open.

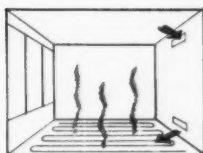
To sum up, the important considerations determining the quality of summer cooling methods in the school field are much the same as those governing good winter ventilation; good winter ventilation and warm-weather cooling are distinctly compatible and may be accomplished with the same system through the addition of suitable refrigeration cooling equipment. It is entirely possible and not at all expensive to equip new schools for future warm-weather cooling.



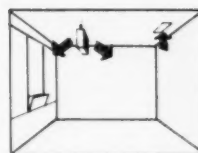
Grills bring in warm air—the air is mixed in the fan room and comes up through floor ducts and is drawn off by corridor ceiling ducts



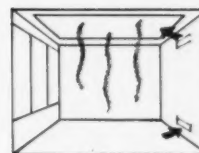
Both hot and cold air enter room by ducts to mixing box under the floor; mixed air enters through window grills and is drawn off by corridor ceiling ducts



Radiant floor slab has pipe coils containing hot water circulation (2-pipe system); corridor ducts admit and draw off air



Ceiling type direct fired unit warms air which, after circulating through the room, leaves through ceiling ducts; this system is natural gas fired



Ceiling electric panels radiate heat downward; air enters and is drawn off through corridor ducts

Yes

Yes

Yes

No

Yes

Good in all seasons

Good in all seasons

Good in all seasons

Good in fall, fair in spring and winter

Good in all seasons

Yes, but only if ducts and piping are insulated and special drainage system is provided in original installation

Yes, but only if ducts and piping are insulated and special drainage system is provided in original installation

Yes, but only if ducts and piping are insulated and special drainage system is provided in original installation

No, except for fan effect

No, unless complete system is added to utilize ductwork in the corridors

Chart material courtesy Alcoa, Eggers & Higgins and Walter McQuade, producers of "Schoolhouse"

Why a business air conditions its offices

by EDGAR M. BUTTENHEIM



THE ANSWER is, in a nutshell, greater productivity. Corporations do not invest dollars in fixed capital equipment unless there is a return on that investment. The business world has long since proved to its own satisfaction that air-conditioning installations pay off.

Let's look at a specific example of a publishing concern in New York City, numbering about 150 employees. Until 1956, the office had no air conditioning. Each year on certain summer days the temperature would rise

Mr. Buttenheim is vice president of the Buttenheim Publishing Corporation and publisher of "The American City" magazine.

to 85 degrees, 90, or even higher. New Yorkers don't even mention the humidity. What happened? Employees riding trains, buses or subways to work would be a little discouraged about life even on arrival at 9 a.m. As the temperatures climbed, the only "air conditioning" available was the open windows (an invitation to city soot) or an electric fan. Long lunch hours in air-conditioned restaurants were popular.

Without using any slide rule, the management could see that work was proceeding at a slower rate, their own desks included! But this was not all. On extremely hot days certain employees could be counted on to start saying to supervisors: "Is there a chance the office will close



early today?" The pressure would build up until finally the exasperated president would decree that the company would close at four instead of five—150 manhours lost—permanently.

In the winter of 1955-56 the executives took a very close look at air conditioning. Estimates placed the cost of a central air-conditioning system at \$30,000. The office lease had four more summers to run. Was it worth it to invest \$7,500 per summer, realizing that if the firm relocated, the equipment would be abandoned?

The controller of the company reminded the other members of top management that the cost of the air-conditioning investment could be "written off" over the period of the lease. This meant that federal income taxes would be reduced, and the real net cost per summer would not be \$7,500 but approximately \$3,750.*

From June 15th to September 15th there are approxi-

* The federal income tax on corporations is 30% on the first \$25,000 of profit, and 52% on the remainder. In addition, this firm paid a New York State corporation income tax. Thus the net cost was in reality a little less than \$3,750.

mately 65 working days, the controller stressed. One hundred and fifty people ought to and do produce far more than \$2.50 each in an hour, but let's assume that is the case, adding up to \$3.75 of "production" for the company. If the temperature passes 90 degrees on ten days out of 65, and the office remains open for that hour from four to five in the afternoon, \$3,750 of air conditioning cost has been won back! In addition, working hours from nine to four would be improved immeasurably, with production rising accordingly.

The decision was made to go ahead with air conditioning. The results have more than lived up to expectations, with a couple of extra dividends besides.

The employees now regard the office as an oasis, not a desert, in summertime. After the commuting ride it is a pleasure to feel the building elevator doors open and breathe in the cool air. With all the windows closed tight, there is less city soot and fewer dry-cleaning and laundry bills. The office is just as pleasant as an air-conditioned restaurant, and more employees now bring their lunch. Nagging questions about stopping work early have ceased.

In the summer of 1958 the director of a department of 30 women faced a sudden crisis, requiring overtime work in the evenings plus all day Saturday. The job just had to be done. The employees realized this and tackled the assignment willingly. Later the director stated that if it had not been for the air-conditioning system, some members of his department might have chosen to stay away, voluntarily sacrificing a chance for overtime pay, because the weather was so hot. Even with a full crew he doubted this deadline could have been met in the stuffy hot office of 1955.

All members of this publishing company are convinced of the wisdom of the investment. Whenever anyone asks them: "Why air conditioning?" they answer, "greater productivity."

Future look at climate controls

by CHARLES D. GIBSON



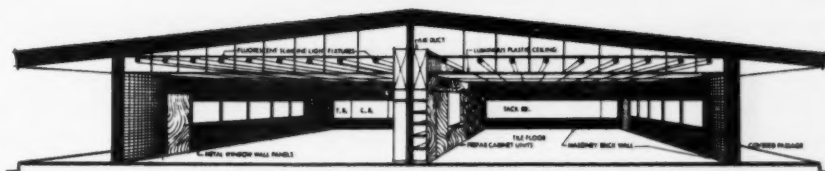
ong before 1980, what we now consider a deluxe job of air conditioning will be as outmoded as barn-raising in New York City. The clumsy, heavy, space-consuming and expensive equipment now required to do a currently acceptable job of real air conditioning—as contrasted with meager mechanical ventilation now

so often confused with air conditioning—will be replaced by smartly-styled, small, relatively inexpensive, electronically-controlled package units. Varying capacity units will be available for spaces of all sizes. Control will be by individual unit, thus making it possible to have complete flexibility in design considerations.

Air-conditioning design and installation will be completely independent of the many architectural, structural and mechanical handcuffs which now make this desirable

Mr. Gibson is chief of the Bureau of School Planning, California State Department of Education.

Cross section of wing in Huron Intermediate School, Fresno County, Cal., shows air conditioning run in utility core between back-to-back classrooms. Horn & Mortland, architects.



Design for Spokane, Wash. school shows indoor-outdoor classrooms with air conditioning. Draft control eliminates winter down-drafts from glass divider wall without using heat and is therefore particularly compatible with year-round air conditioning. Culler, Gale, Martell & Norrie, architects.

Emily Griffith Opportunity School in Denver is planned for "future cooling." Air-conditioning units, chilled water piping, insulation, drains and controls were installed in original construction; only water chiller and cooling tower will be required when summer enrollments warrant summer cooling.

Ceiling-hung air-conditioning unit in classroom of Belaire Elementary School, San Angelo, Texas. Circular plan of school necessitated only short-run supply ducts from centrally located air-conditioning system. Caudill, Rowlett & Scott, architects.



Eunice Smith Elementary School, Alton, Ill., has air-conditioning unit ventilators in classrooms. Conditioning has increased summer use of building for special classes and teacher workshops.



thermal control a stepchild of poor communication and old wives' tales.

By 1980 real air conditioning will be as much an integral part of enclosed space design as walls and roofs. It will not be an item of choice—it will be an item of necessity.

What are some of the things which will make all this possible?

First, there will be even further refinements of a fairly recent arrival on the electronic scene called a "transistor." (This handy minute gadget—among other things—makes possible the conversion of electricity from low cycles to very high cycles.)

Second, the constructive use of atomic energy will make electricity so inexpensive it will become a free commodity.

Third, the separate and presently poorly-coordinated professions of architecture and all phases of engineering relating to enclosed space will disappear. A new profession named something like "environmental design" will come into being. This new profession will be concerned with creating a completely balanced physical environment—not just a building—for the total comfort, delight and effectiveness of all its occupants. It will begin, develop and complete designs with the major objective being to meet the physical comfort needs of people.

Fourth, trade unionism as it is known and practiced in the construction industry today will be only a memory. Men practicing the various construction trades will have learned to accept a prime contractor for various kinds of installations who will be responsible only to the "general" contractor. A man will be able to use the best available tools to do a job. (And working conditions will be so good, the building site might have to be air conditioned before workmen start constructing the building.)

Facts known by 1980

Responsible school authorities and the lay public will be aware of some facts that will have been completely documented by 1980. One of these facts is that it is "penny-wise and pound-foolish" to make a substantial investment in land, structure and enclosure, and then attempt to save money by installing cheap and inadequate facilities to condition that space for the comfort of its occupants. The basic justification for providing both the enclosed space and its proper conditioning is the extent to which it provides a good environment for learning.

Proper conditioning of school buildings must involve the balanced integration of at least five basic building design factors: spatial, thermal, visual, sonic and aesthetic. Upon the successful integration of these five factors in enclosed educational spaces depends not only the degree of safety and comfort provided for pupils and teachers, but also in substantial measure the educational usefulness of the plant and the efficiency and economy of its operation.

The thermal factor in school design has not received the attention or understanding it deserves. Its real importance has been sidetracked in favor of more obvious

factors such as the spatial and visual factors. The truth of the matter is that in some ways it is more critical than any of the others.

If, for example, you find yourself in a poorly-lighted room with an inordinate amount of glare, you can change your position or close your eyes and so avoid discomfort. A poor thermal environment cannot be avoided so simply and easily. From the moment of birth to the moment of death, awake or asleep, 24 hours each day, one is in a constant state of adjustment to his thermal environment. You may be sleeping soundly and if your thermal adjustment gets out of balance you awaken.

The tolerances of the human body to thermal differences are extremely small. Either extreme of temperature causes discomfort quickly. In a schoolroom, discomfort means inattention, restlessness, poor behavior habits and a minimum of ability to maintain sustained attention to any mental task. Such discomfort means that the 70 percent of the total educational dollar spent on the instructional program is returning very little value to the parent, community, state or nation providing it.

Living standards will demand it

By 1980 it will be academic to argue about the need for real air conditioning on the basis of a longer school day or school year, production of better grades, more effective summer school, or any of the other currently common reasons. The close relationship of properly balanced and conditioned enclosed space to the comfort, welfare and effectiveness of mankind will have been adequately documented. Our standard of living in homes, offices, factories and schools will demand it.

But, why wait for 1980?

We already know there is no certain relationship between the cost and the quality level of a school building. No one element of a building design can control the cost of the complete structure. Often by the addition of such a relatively expensive element as refrigeration air conditioning the cost of the total building can be reduced. Savings effected in such other elements as the amount of window area, the number of operating sash, a more compact building mass, coordinated mechanical-electrical engineering design, prefabricated component building parts, etc., can more than offset the additional cost of the best air-conditioning system known.

If many of the administrators, board members, architects and engineers of 1959 would take a long, hard look at the result they really want to achieve through educational housing, *real* air conditioning could be made a part of many school buildings now being designed without any increase in the price we will pay for them without it.

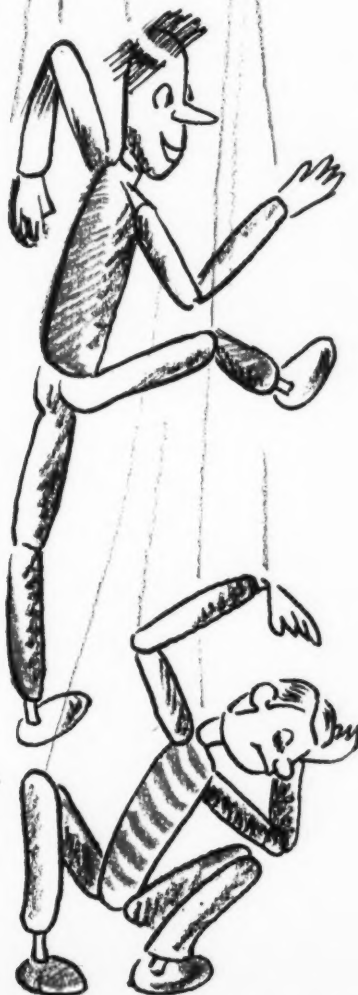




POWER ELITE

in your community

by ROBERT P. BULLOCK



IT IS EASY for us to follow the maneuvering of the wielders of power in international, political and business circles. But if we look closely we can see the power elite operate in our own communities as well.

Social scientists have collected considerable evidence concerning power structure and the power elite as they operate on different levels and in different contexts. Their findings on the power phenomena have much significance for the school administrator. For certainly it is important that the administrator seek an understanding of community power structures, subjected as he frequently is to the conflicting demands and pressures of rival power groups.

Dominant power factions seek to utilize the educational institution in order to further their particular objectives. Demands are made not only for the use of physical facilities and the right to final evaluation of personnel, but also for the inclusion or exclusion of curricular materials, the banning of specified books, and even the adoption of specific instructional methods. The school administrator, seeking to be a truly professional educational leader, often finds himself forced into the unhappy dilemma of choosing between the maintenance of professional integrity, accompanied by defiance of the

power group upon whom his survival depends, or the sacrifice of integrity and acceptance of the role of "messenger boy," executing the directives of a dominant power group that can grant or withhold the contract renewal and salary increase.

Administrator's job complicated

The task of the school administrator is further complicated by the fact that he must simultaneously serve several masters whose objectives may be inherently dissimilar. On the one hand he must protect and promote the interests of his instructional staff whose aims, for example, might include higher salaries, smaller classes and more and better instructional equipment. Opposing these are the perhaps not uncommon school board objectives of budget reduction through lower salaries, increased class size, elimination of whatever is currently designated as "fad or frill" and curtailment of instructional equipment and supplies. Overriding both of these is the administrator's first and greatest obligation, to serve the educational interests of children; to actually and honestly be the professional educational leader dedicated to and championing the cause of those who are at once the weakest in power yet the consumers and recipients of our product.

The concept "power," implying as it does the ability to control, de-

Robert Bullock is an associate professor of sociology at Ohio State University, Columbus, Ohio.

cide, and if necessary to force obedience, is distasteful to many and not in keeping with popular ideas of democratic process. The term seems to suggest that there are individuals in the community who possess the ability to force compliance with their wishes, and who retain in their own grasp the prerogative of final decision regarding policies or issues they deem important.

Definitions of power

The companion term, "power structure," suggests that these individuals exist and operate in a systematic, coordinated relationship to one another and to the rest of the community, over which power is then exercised. For example, Max Weber, says, "In general, we understand by 'power' the chance of a man or a number of men to realize their own will in a communal action even against the resistance of others who are participating in the action." R. M. McIver tells us, "By social power we mean the capacity to command the service or compliance of others." In the same tone C. W. Mills says, "By the powerful we mean, of course, those who are able to realize their will even if others resist it."

Certainly no experienced school administrator would seriously contend that there do not exist, at least in most communities, individuals who possess such preponderant power and who operate in systematic, patterned relationships with one another to exercise their joint power to control and decide community policies or issues. Such euphemistic terms as "leadership," "influence," "social control," and "authority" we should accept as euphemisms which merely denote various aspects of power.

Studying power structure

Power relationships exist in any situation where people interact. They constitute a social fact which must be recognized and understood by anyone seeking to guide, lead or facilitate community action. How, then, is power structure to be studied?

Techniques available for the study of community power range from those of the historian, the sociolo-

gist, the economist and the anthropologist to recent sociometric techniques and the more rigorous ones utilized in experimental research study of small groups under quasi-laboratory conditions. Their use has resulted in a growing body of research literature which should hold much interest for school administrators. Skillful administrators themselves constantly use many of these techniques informally and almost unconsciously in order to better understand the community they serve.

By "the techniques of historical analysis" I mean the study of documentary materials which provide background and time perspective against which a community's present structure and condition may be examined. What is the history of the community? How did it come to be what it is? What factors have been influential in shaping the course of its development? What is the history of the community's important economic enterprises and social institutions and what part have these played in the community's development? These are questions the historian is likely to ask and while no school administrator has time to become an historian, he will inevitably absorb more appreciation of the history of his school and community.

Sociological approach

Among techniques used in sociological and anthropological study are those of guided observation, participant observation and informal interview. While some may think of anthropology as the rather exotic study of curious primitive tribes, many of its techniques are particularly appropriate for the study of our own communities. The social anthropologist seeks to view the subject group with the dispassionate and presumably objective eye of the "outsider" and to compare and contrast it with other groups similarly viewed. The school administrator is in many ways, whether he wishes it or not, a sociological "stranger" in his community. He is in a position to compare and contrast communities on the basis of personal knowledge and it is important that he retain a detached objectivity in his evaluations.

The school administrator is a participant in community power structures (sometimes a victim). He often* becomes a keen observer of techniques for the exercise of power and he often engages in discreet questioning to identify power figures important to him. What school administrator when applying for a new job has not considered the question, "Who is the most powerful friend I can get to support my application?" or, "Whose voice will carry the most weight in this decision?"

Studying power figures

A student of mine who was starting a research project once asked, "How can I find out who are the best school administrators in this region?" I guess I was tired and a bit irritable, for my reply was, "Find someone who knows and ask him." My answer was not wholly facetious and the job was not nearly so simple as it sounded to the student. First of all, it required a very careful determination of what he really wanted to know and second, it required a very careful search for those *knowledgeable* persons able to supply the information required.

This, in essence, is the basic technique of sociometric method and, with considerably more sophistication, it was the technique used by Floyd Hunter in his study of power figures and power structure in a southern city of 500,000 people. It has been used also by Schulze and Blumberg in study of "a middle-sized (20,000) mid-western community" and by Delbert Miller in studies of a west-coast city of 468,000 and a city of 440,000 in western England. Essentially the method involves the identification of figures reputed to constitute the local power elite through nominations obtained from "juries" or panels of presumably "knowledgeable" informants.

The Schulze and Blumberg study is notable for the care in design and use of the method. Since one of their objectives was to determine whether similar results would be obtained from differently chosen nominating panels, three different panels were used. The first was composed of the

formal heads of the local voluntary associations. The second nominating panel was composed of "economic dominants" and included persons occupying the top formal positions in the major local business, industrial and banking units. The third panel was composed of persons designated as nominal leaders holding prominent political or civic offices—the mayor, president of the chamber of commerce, chairman of the community chest, president of the largest labor union, county chairmen of the political parties, president of the women's club and publisher of the largest locally owned newspaper, among others. Persons on each of the three panels were asked five questions. The first two questions actually proved sufficient and were as follows:

1. "Suppose a major project were before the community, one that required decision by a group of leaders whom nearly everyone would accept. Which people would you choose to make up this group—regardless of whether you know them personally?"
2. "In most cities certain persons

are said to be influential 'behind the scenes' and to have a lot to say about programs that are planned, projects and issues that come up around town. What persons in this town are influential in this way?"

When separate lists of persons named by each of the three panels were compiled, a strikingly high degree of consensus in judgment was discovered. Seven persons, for example, were included among the top nine on all three lists and there was overall agreement on 72 percent of all nominations made. Such consensus among the 175 people included on the three nominating panels appears to be strong evidence that here are the "knowledgeable" people who are able to identify the top power figures in a community.

Floyd Hunter carried his research several steps further. Having identified the individuals comprising his power elite he then interviewed each of them, asking that they also nominate top power figures. As you may anticipate, they proceeded to nominate each other, admitting the positions of power dominance. This constituted additional evidence that

dominant community power figures had been located. The next step was to study the behavior, habits and interactional characteristics of these individuals. Of particular interest was study of the techniques utilized by these figures in exercise of the power they possessed.

All of these techniques for the study of community power structure can be used informally by the school administrator. Many do use them intuitively and skillfully, but without much system. To improve our understanding of community power structures and how they work we should first of all discard our fear of the concept and be honest enough to admit that differential power exists, and must be dealt with. Then, like a prudent jungle hunter, we should identify the species which constitutes our particular quarry, learn its habits, its habitat, its protective coloration, the disguises it adopts and the devices it uses to accomplish its objectives. Only when we know these things are we in a proper position to evaluate, utilize, or if necessary to fight one of the important factors which daily confronts us.



Studies of Power and Its Consequences

ILLUSTRATIVE EVIDENCE of the interest in power and its consequences at many different levels and contexts is provided by such writings as Thorstein Veblen's *Theory of the Leisure Class*, which first appeared in 1899 and has gone through periodic reprints. During the "muckraker" era there appeared such volumes as *The Jungle*, *The Goose Step* and *The Brass Check* by Upton Sinclair. Ida Tarbell's *History of the Standard Oil Company* appeared in 1904. Somewhat later came *The Lords of Creation* (1935) by Frederick Lewis Allen. *Middletown*, a study of community social structure, and *Middletown in Transition* appeared in 1929 and 1937 respectively. H. D. Lasswell's work, *Politics: Who Gets What, When and How*, came out in 1936. George A. Lundberg with Margaret Lansing did a sociographic study of community prestige relationships which was reported in 1937. During the same year, Ferdinand Lundberg's work, *America's 60 Families*, a study of economic dominants, was published following the earlier appearance of Mathew Josephson's *The Robber Barons* (1934). Brady's *Business as a System of Power* came out in 1943.

The George S. Counts study, *The Social Composition of School Boards*, was reported in 1927. The Warner, Havighurst and Loeb volume, *Who Shall Be Educated?*, appeared in 1944 and another volume of possible interest to educators, *This Happened in Pasadena*, appeared in 1951.

During the early 1950's, the manifestation of power relationships and struggle in industry has been treated in such volumes as *Work and Authority in Industry*, by Reinhard Bendix (1956); *Heritage of Conflict*, by Jensen (1950); *Industrial Conflict*, by Kornhauser, Dubin and Ross (1954); and *The Union Challenge to Management Control*, by Neil Chamberlain (1948).

Of current interest is the volume by C. Wright Mills, *The Power Elite*, a study of power at the national level, published in 1957, following the author's earlier work, *The New Men of Power*. At the community level, Floyd's study, *Community Power Structure*, appeared in 1953 and subsequent similar studies have been written up in the professional journals by Robert Schulze, Delbert Miller, Pelligrin and Coates and Peter Rossi.

3 solutions to the salary problem

...with particular appeal
to the male teachers
on your staff

by VICTOR W. DOHERTY

HOW CAN WE recognize teaching merit through salary? How can we provide more financial opportunity for men in teaching? These two problems especially perplex school administrators and boards of education today.

While sometimes negative in their attitudes toward solving these problems, teachers are inclined to acknowledge that they do exist, even though they fail to see through the maze of difficulties that obscure their solution.

Arguments against merit pay for teachers run like this: judgments of quality teaching are not easily made, especially because teachers and administrators cannot agree on the specific elements of superior teaching, much less upon the weightings that should be attached to them in evaluating performance . . . jealousy may be created among teachers, thereby imperiling staff morale . . . the schism between teachers and administrators which normally exists in some degree would widen if administrators rated teachers for salary de-

termination . . . fair evaluation demands a thorough system of observation and analysis, and such a system is necessarily costly; anything less is patently unjust to teachers and will foster resentment . . . a merit schedule, superimposed on a sound basic schedule, would add greatly to the cost of school operation.

These are formidable arguments against merit rating. But the need for recognizing outstanding teachers and for providing capable young men and women with financial incentive to become teachers is too compelling to cause the profession to retreat before these problems, however vexing.

1. Merit plan presented

The outline of an approach to recognizing merit in teaching is presented here for consideration. Although it was developed with the idea of applying it in a large city school system, it could be adapted for use in smaller systems.

1. Reduce the general supervisory staff to the minimum required for direction of a corps of consultants as described below.

2. Every third year appoint 2 per-

cent of the teaching staff to consultant positions.

3. Require applicants for such positions to pass exacting, qualifying examinations confirming professional knowledge.

4. Make appointments on recommendations of principals only from the list of those qualifying under #3 above. Each appointment would be finally approved by a reviewing board, which would include the candidate's principal and a supervisor familiar with the teacher's work.

5. Teachers appointed would serve for three years as consultants, especially for beginning teachers. Preferably they would be assigned to one, and not more than two, buildings.

6. After three years, the consultants would return to classroom teaching, retaining a merit increment of perhaps \$800.

Such a plan has these features to commend it: aspiration to become a merit teacher is maintained; incentive to teach well is always present because there will be a new quota of merit teachers appointed every third year. The cost, though substantial, is assumed gradually, and never becomes exorbitant. Application for the consultant position is optional, removing the necessity of all teachers being rated. Professional assistance for teachers is constantly being given by persons only shortly removed from classroom experience. Good teachers are soon returned to the classroom where their value is unquestionably great, instead of being permanently removed from teaching as is currently the practice with instructional supervisors.

The plan, of course, would need to be adapted to a school system's own special organization and method of operation. It does, however, provide guidelines for developing a workable merit system free from many of the objections to such systems which are currently being voiced.

The effect of welding together the administrative and instructional staffs by periodically taking a group of teachers into a semi-administrative status and then returning them to the teaching staff without loss of sal-

Dr. Doherty is director of research for the Portland, Oregon school system.

ary should be regarded as an important value of this plan.

2. Remuneration for men

The second problem which urgently needs a solution is that of providing adequate salaries for teachers with dependents.

It is perhaps unnecessary to mention that men who enter teaching and acquire a family soon discover that the annual increments of most salary schedules do not keep pace with their expanding financial responsibilities. Several studies have been made which reveal the struggle these men make to support their families, usually by working after-hours and on weekends. Under mounting work loads and personal frustrations they eventually leave teaching, or unhappily resign themselves to their penurious state.

The extent of hurt suffered by the teaching profession from this fact is not easily measured, since it manifests itself in many ways. The selective process by which men teachers of ability realize and act upon their predicament causes constant erosion of the top-soil of male teaching talent. The long-range effect is to discourage young men from entering teaching. The residue of those unable to break with teaching or "rise" to an administrative position can vitiate the morale of an entire faculty, women included.

Administrators need to face that there is no virtue in having male teachers; there is only virtue in having *good* male teachers. And unless the remuneration for teaching can be made attractive to men, we will not, in general, have good male teachers. Administrators need also to recognize that rewards other than promotion to administrative positions should be given to ambitious, talented teachers, whether men or women. Such promotions frequently result in double harm: a good teacher is lost and a poor administrator is created.

What is the solution? I do not believe it lies in differentiated salaries or in dependency allowances. A partial answer has been presented in the discussion on merit salaries. A second

suggestion is the creation of more responsibilities related to teaching or to the programs of the public school system. Many such jobs already exist in continuation schools, adult evening schools, summer schools, summer recreation programs and curriculum development projects.

Where such programs exist, coordinated efforts should be made to insure that teachers with dependents receive priority consideration for these positions. If positions of this nature are not available, administrators might consider developing a program of summer employment consisting of curriculum development, research, evaluation and program planning which would give teachers opportunities to increase their on-the-job effectiveness.

Priority should be given persons having dependents only if other qualities such as ability and effectiveness are reasonably equal to those of applicants with no dependents. Stated another way, professional opportunities should be created, but only where professional attitudes and performance are demonstrated by the recipient.

There are periods in the development of all professional men when there is a struggle to establish a reputation and to achieve financial status. But that period of struggle finds the doctors and attorneys engaged in long and difficult hours of work and study *within* the limits of their professional practice, not *outside* those limits. It is during this period that character and competence are forged; this should also be true in teaching. Administrators should feel a responsibility to see that the efforts of young men are directed toward professional growth and not dissipated in part-time jobs outside the profession.

3. Adjust salary increments

There is another change needed in teacher salaries if the problem of men in the profession is to be met successfully. This concerns the structure of the typical teacher salary schedule.

Most teachers will attest that annual salary increments in the past

several years have been virtually cancelled by increases in cost of living, and that only through wholesale salary adjustments have any real gains been made. Even if inflation did not occur, the typical \$150-\$200 annual salary increment will provide most teachers no more than a \$9-\$13 monthly increase after taxes, which can scarcely effect a change in standard of living. The delivery and hospital bills of a baby can consume an entire year's salary increase, which means that food and clothing for baby reduce the food and clothing allowance for mother and father. Two or three babies and the family's standard of living, which was none too high to begin with, is reduced to a state little short of poverty.

A rearrangement of the typical salary schedule would go far to eliminate this problem, and though it would result in some cost increase to school systems, the long-range benefits would be great. This adjustment would be to reduce the salary schedule from the usual 10-14 steps to 6-8 steps, retaining small probationary increments of about \$200 but increasing increments in the first three years of post-probationary teaching to perhaps \$500 annually.

Thus a teacher beginning at \$4,200 would receive \$4,600 the third year of his probationary period but \$6,100 in his sixth year of teaching. There the bachelor's degree schedule would stop or increase only two or three small additional increments. A concomitant responsibility of such a schedule would be a tough probationary evaluation which would leave in the school system only teachers with professional attitudes and competencies.

It is true that this would place the earning power of a 6-year teacher higher than that of many persons in other professions, but this small temporary advantage is needed to offset the far more attractive long-term earning possibilities in other professions. It is also needed to relieve married men teachers of the financial concerns that most certainly detract from their effectiveness as teachers, concerns which are particularly oppressive in the immediate post-probationary years.



The shovel stands alone but the citizenry is united—construction goes ahead. Ground-breaking was start of aggressive campaign to inform the public.

How's your PR climate?

The Case of a Cool Public Turned Warm

by JAMES D. LAWSON

AS HAS ANY other school district, we have known occasions when the public has reacted differently from what we anticipated. Sometimes the reaction came after a period of seeming acceptance. Specifically, this occurred with our proposed 9-district joint senior high school.

Although the recommended rules for good public relations through the media of radio, press and such, had been followed to the letter and although the professional staff members and lay public had been invited to participate, misunderstanding occurred.

A multi-million dollar high school building program was actively ini-

tiated in our system in 1953. On the eve of securing bond bids, however, the issue broke forth into a heated community controversy which further delayed construction until October, 1957 when ground-breaking finally began.

With all that had been done correctly, some essential element was lacking. At a meeting of the Public Relations Committee established by the 9-district board, it was agreed that the missing element was an understanding of the educational program and the high school curriculum. It was concluded that public relations must, above all, bring to the public comprehension of what the schools are doing and what, more specifically, they will do. Public relations must be more than promotion,

more than salesmanship, per se. It must involve an appreciative point of view by informed and participating citizenry.

The first opportunity to actually put this point of view into effect presented itself on the occasion of the ground-breaking ceremony.

This dedication site program included selected representatives from the student bodies of all the districts concerned. In addition, representatives from civic groups, fraternal organizations, industry, labor, the professional staffs and boards of education, among others, were asked to be present.

At the ceremony the former superintendent, who had initiated the project, commended the community on the action taken and recognized

Mr. Lawson is director of curriculum and supervision for the Butler Area Joint Schools in Butler, Pennsylvania.

the work of the joint board of education, the building authority and the contractor. This followed the invocation by a board member and was preliminary to the actual groundbreaking, conducted by the president of the 9-district jointure. He, in turn, dedicated the site and the proposed structure, and then turned the shovel over to the president of the junior high school student council, who responded with words of appreciation, requesting that the contractor move with speed and consideration of good construction practices in the development. The superintendent of schools then led the assembled group in a responsive dedicatory pledge.

At a meeting later in the day, further recognition was given to those who serve. At this time, the superintendent of a neighboring township discussed the effectiveness and economic advantages inherent in the campus-type junior high school which he administers.

This forthright presentation did much to allay the fears of those who had opposed a campus-type plan for

reasons of student health, economy and academic proficiency. Further, it bolstered the convictions of those who had felt that the proposed building plan was first and foremost a functional necessity for today's desires and tomorrow's needs.

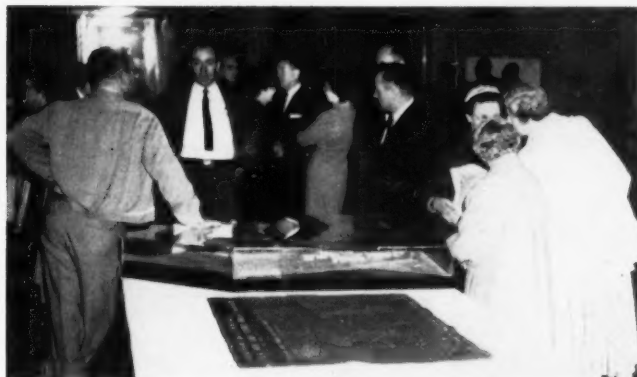
The entire assemblage then adjourned to the gymnasium, where the secondary professional staff had prepared a visual presentation of the curriculum. This enabled the guests to see the texts that were being used, courses of study and supplementary teaching aids, and to discuss person-to-person the particular areas and subjects now offered in our 83½ Carnegie Unit curriculum.

Staff members, inspired by the challenge to present the curriculum, not only enjoyed the professional growth but did much to develop a sense of appreciation among members of the lay public. Highlighted by the model of the proposed school, this was an informational meeting in which administrators, staff members and curriculum efforts became realities to an otherwise relatively uninformed public.

As the meeting progressed, the audience moved from the academic phase of the curriculum to examine the industrial arts offerings, as well as the visual aids and supplementary materials which were supplied. They then had an opportunity to discuss aspects of the program over coffee and punch. The understanding of the program results reached a new high.

We recognize that this occurrence is not unique nor conclusive, but that, as an isolated instance, it helped provide a basis for improving public response to program results. The students and teachers who participated, the board members who helped to plan and the community representatives from the nine districts involved are now more sure of the educational program and of what the future will bring.

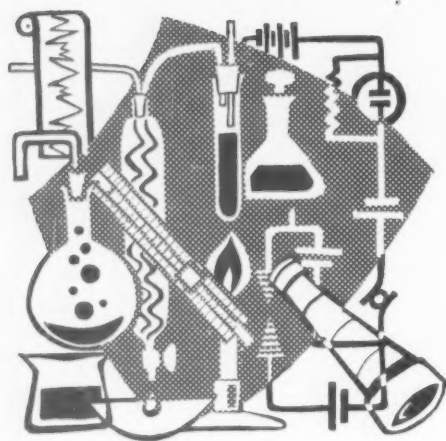
Following this same principle throughout the year in a series of functional meetings and activities has produced a flow of wholesome interest which is accumulating a reservoir of understanding and positive help.



The public gets a preview of its new school building when the school model and blueprints are displayed. The architect stands by to answer questions about the new design.

Students set up a foreign language display as part of the visual presentation of the school curriculum. Here citizens could inspect texts, courses of study and teaching aids and discuss them with staff members.





Idea kit for elementary science

by J. STANLEY MARSHALL

TOO LONG I have been telling elementary school teachers how to improve their science teaching. Be resourceful, I have been saying; use your imagination. Provide the children with simple materials and challenge them to find the answers. Let them explore. Organize an *active* program, I have continued. Do things. Science is here to stay. Don't be left behind, I have cautioned. Do it now!

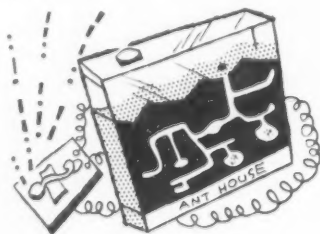
Ad infinitum.

But I hasten to add that all such comments are made with the best intentions, always in an attempt to help teachers with their science teaching problems. For certainly they need all the help today that they can get. And I am convinced that the suggestions above are workable. But I have slowly come around to the realization that the message has, in most cases, been delivered to the wrong person. The finger points to *you*, Mr. Administrator. You, more than any other person, including the classroom teacher, are the key to an effective science program.

But why pick on me, you say as you glance over your shoulder to see if I couldn't be addressing someone behind you. The reason is simple. Teachers need help and you are the

logical person to see that that help is forthcoming. In many cases you are the *only* person who can get the wheels turning.

You will agree, I am sure, that most elementary school teachers have not been prepared to do the kind of job in teaching science which good education demands. You would not consider for a moment asking the typically-trained classroom teacher to take over a class in typewriting or in French. Why, then, should a person whose training in science amounts to no more than one undergraduate course in biology or a field trip taken as part of a summer course be expected to do a respectable job of teaching the science that is demanded of enlightened citizens in today's world?



And so I turn to you, Mr. Administrator. There are things you can do to provide the help which your teachers desperately need. Fortunately, most of the necessary steps can be accomplished relatively easily and inexpensively.

Why teach science?

In the first place, I believe that

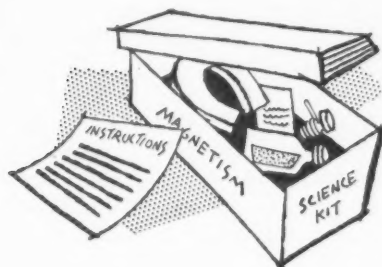
most teachers who lack extensive training in science are not completely sure why it is so important in the elementary school. However, there are countless reasons why a child who will live in the second half of the 20th century needs to be equipped with a solid background in basic science. But how? A good answer to the problem, perhaps the best one, is to invite to your school a person with extensive training and experience in science who is also well informed on present and future developments. Ask him to speak to the teachers on the excitement and romance of living in a world so full of amazing scientific achievements. Such an accounting is effectively delivered in a new book by Victor Cohn, called *1999 Our Hopeful Future*. Describing the world we will live in at the end of the century, Mr. Cohn writes of a prefabricated house built to turn on an axis so as to receive sunlight in any room desired. And the sunlight, he says, will be there when we want it because man will control the



Dr. Marshall is professor of science at the State University of New York Teachers College at Cortland. At present he is a consultant to the State Department of Education, working on new scientific programs.

weather over the entire earth. In our homes, a small transmitter will broadcast radio waves to all parts of the house to operate cordless appliances.

Outside the house, the author continues, things will be just as exciting. We will have highways where your automobile will be locked into the proper lane electronically with the brakes being applied automatically as needed. In the office, you will speak into a microphone and have your words typed. The blind will see and the deaf hear electronically.



The progress in medicine will be equally amazing. Weak hearts will simply be replaced by strong ones. The chemistry of mental illness will be known. Many of our most serious diseases will be under man's control.

David Sarnoff, Edward Teller and others have told us what we can expect in the decades ahead. There can be no doubt that the emphasis on science and technology is increasing. And man, if he uses the wisdom of which he is capable, will employ this technology to build a world of peace and contentment and dignity for himself and following generations.

To produce a child who is uninform of the principles of science on which depend the devices that surround him is to fail to meet one of our most pressing obligations. Even today, the person operating in this International Geophysical Year without some knowledge of basic science is at a disadvantage.

Yes, Mr. Administrator, there are dozens of vital reasons for teaching science to today's children. A dynamic, vigorous person who has the facts and presents them interestingly may help to accomplish for your school the first important step in initiating a good science program—

that of convincing your teachers that science is important.

Program with a plan

Incidental science is wonderful. And there can be no doubt that children do their best work when they pursue their own interests and try to find the answers to their own questions.

But incidental science is not enough. The best science programs are planned. A planned sequence of science topics does not preclude the incidental approach; it does, however, eliminate some of the important pitfalls that plague many school science programs. Grace C. Maddux, science supervisor in the Cleveland Public Schools, writing in *The Science Teacher*, has listed a number of factors which favor a planned program. They include:

1. Science should be orderly knowledge. A planned program permits progress from simple understandings in the primary grades to more complex ones further along. This helps children to understand that a great deal of genuine science understanding develops slowly, concept upon concept. Children can better see the expanding concepts in science and the interrelationships among the various areas.
 2. A well planned and executed program avoids repeating the same thing year after year. Repetition of this kind often contributes to children's dislike of science.
 3. A planned program gives the teacher a feeling of security. She knows where to begin, and then builds a program of science teaching for her grade which she knows she can refer to next year.
 4. A planned program makes certain that no important area of science is passed over in favor of others which may be more popular. It would be unfortunate if, by the time a child has finished the 6th grade, he had studied airplanes five times but had no experience with sound.
 5. Integration with other subjects is facilitated if there is a planned sequence of topics for study.
- But you say that such a plan makes it impossible for a teacher to follow

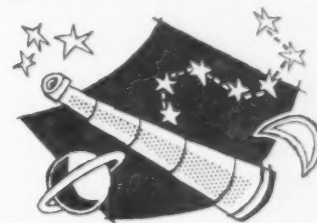
the interests of the children? Not so. A teacher whose 4th-grade children want to learn about why airplanes fly, in a school where that topic is not scheduled until the 5th grade, can arrange with the 5th-grade teacher for an exchange of topics. The 4th graders may investigate the reasons why the airplane stays aloft without advancing to the further questions which come in the 5th-grade study of aviation.

Perhaps the most important consideration in this problem is that there be good communication between teachers. In some schools, brief written records summarizing the science activities at each grade level follow the class from year to year.

Incidentally, it is sometimes difficult to convince teachers of their proper role in teaching science. They should encourage, direct, provide materials, challenge and motivate children to find the answers in their world of science; they should not regard themselves as walking encyclopedias. Perhaps the most sensible precaution that could be given teachers is that they should rarely give the answers to children's questions in science, even when they know the answers. As important as the answer is the process of finding it.

Get organized

A sound first step in most elementary schools is to find out just what facilities the school has for teaching



science. Is running water available? How many alcohol lamps, tuning forks, test tubes, copper wires? Is there a projector?

A lively science activities program requires certain equipment and teachers should be given every possible assistance to see that it is available. Perhaps a science resources handbook, compiled by a committee of teachers and listing all the mate-

rials for teaching science which the school has on hand, would be helpful. It might also include human resources—people in the community who are willing to help with the science program, such as physicians, nurses, 4-H leaders, people who have hobbies like photography, nature study or astronomy, and professional people whose work is of a scientific nature. Like most of us, these people enjoy sharing their interests with others and may be willing to contribute their services to the school's science program.

Part of the organization for an effective program in your school may lie in obtaining a full-time science supervisor or, in the case of a smaller school system, a helping teacher who is given some time off from other duties. The job of the supervisor or helping teacher is to foster the teaching of science in every way—to make suggestions to classroom teachers for activities and experiments, to help provide equipment, to arrange field trips and other special events, to serve as a liaison between teachers in matters related to the science program and to help with public relations (and what science department is not in the news today?).

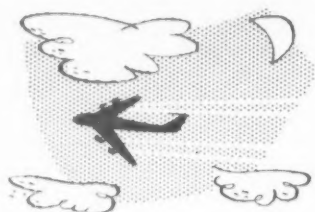
The time has arrived when the chief school administrator must give due consideration to the science program at budget-making time. It is no more possible to teach science properly without certain fundamental tools and facilities than it is to teach art or music or physical education without specialized equipment. The current emphasis on science and math is resulting in numerous pressures on school people. Some of these are not in line with sound educational policy and no responsible science educator favors discarding time-tested educational practice only because "the Russians aren't doing things that way." We



should, however, be wise to recognize the need for changes in both policy and practice where it exists. One of the most important is the recognition that science must have its *fair share* of the schools' resources.

ideas, Ideas, IDEAS

To put the wheels of an effective science program in motion is one thing. To keep it moving smoothly



forward is quite another. A dynamic program this year may fizzle a year later. The sure preventive for this situation is ideas—new, invigorating, dynamic, imaginative ideas. Another factor is the change in teaching personnel. New teachers must be kept abreast of new program developments and infused with workable ideas for carrying on meaningful teaching.

Where can you find a wellspring of good ideas? I refer you again to the resource person. He is most often a science specialist who can render good service as a consultant. He may be a college science educator, or a public school science specialist with sufficient training and experience to enable him to challenge teachers who may be feeling the effects of a hard day and a long year, or he may be a high school science teacher right in your own system.

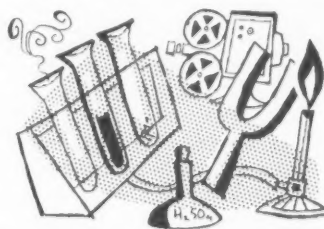
The following are representative of the kinds of things teachers can do to conduct good science programs:

1. Seize every opportunity to make science a part of the child's day-to-day experiences. When your community is hit by a snow storm, challenge the children to understand the weather conditions which caused the storm. Encourage children to discover the scientific principles on which their toys operate. Ask them to think of ways in which new developments in science will affect their lives.

2. A delightful idea in science

teaching consists of making up "shoe box science kits" which the children may check out and take home as they do books from the library. Each box contains a number of simple items which are used to test some principle of science by safe, easy-to-perform experiments. Accompanying the simple materials is a list of instructions for the child to follow, along with a series of leading questions designed to help him discover certain principles and concepts of science. A number of such kits can be made up, each to represent a different area of science. The time required to assemble the kit is not great and the cost is usually measured in pennies.

3. Another idea being used to good advantage is to have children in the upper elementary grades go forth in small groups to show and explain their projects to those in the lower grades. For example, let us imagine that the 6th graders have just finished studying weather. One group has specialized in simple weather instruments. As a result of their concentration in this area, they have come to know a great deal about barometers and hygrometers and rain gauges—they are the school specialists on weather instruments. During their visit to the 4th grade, they display the instruments they have built and explain their operation. The benefits to be gained by this type of activity are great. The 6th graders



gain poise from their presentation. They are motivated to do their best possible work in science. They get valuable experience in oral expression, too. And the 4th-grade children are thrilled by what they see and are doubtless motivated to become involved in this kind of scientific project themselves. Then, of course, the tables may be turned—the 4th graders might just do well enough on their projects to merit a visit to the 6th

grade to show their wares. Can one imagine better motivation than this?

4. There are available today a great number of films, filmstrips, tapes, mockups, industrial samples and teaching aids of various kinds. These materials can go far toward enriching the science program. Every school should have catalogs on hand describing the materials which are available.

5. Every opportunity for the integration of science and other subject matter areas should be explored. Music should be an integral part of the study of sound. Here is a fine opportunity for the music teacher to work with the science teacher to relate the understandings of the various instruments to the science of vibrating bodies. No study of aviation is complete which does not consider the ways in which the airplane has changed men's lives. Here is a natural tieup between science and social studies.

6. An elementary school science fair is used to good advantage in many schools. It provides opportunity for children to show their parents and friends what they can do. The fair need not be an elaborate exhibit. What is commonplace to the teacher may be full of excitement to parents. A record of the winter snowfall, a colony of ants or a simple telegraph set may be the best kind of evidence that your school is doing things in science.

In the present cry for more and better science teaching, the chief school administrator is rarely singled out as the one to whom the remarks are addressed. Teachers are scolded for their poor performance, parents are urged to work for better schools and the American people are instructed to demand improved educational standards. But those who understand the nature of American public education realize that it is you, Mr. Administrator, who is in the best position to translate words into deeds. Yours is the power to lead in the establishment of policy, in the allocation of money, in building the curriculum, in providing an atmosphere in which good teaching and effective learning can really take place.

MEMO

to: School Administrators re: Challenges for 1959

by THOMAS L. NELSON

Superintendent
Berkeley, California, Public Schools

School finance: Rising school costs and an already overburdened local property tax will make it even more essential for school administrators to discover better ways of financing schools. At the same time, it will become increasingly important for school administrators to run school programs more economically.

School facilities: Enrollments will continue to swell, particularly at the secondary level. In addition to needs resulting from enrollment increases, school systems will continue to be faced with the problem of antiquated buildings. The major responsibility for leadership in providing adequate facilities will rest with school administrators.

The curriculum: The instructional program will be under closer public scrutiny than ever before. Administrators will have to answer an increasing number of questions about the curriculum, and will have to safeguard what is good. At the same time, they will need a dynamic and objective approach for curriculum change.

The gifted: The upper echelon of intelligence will become more and more prominent in public attention. School administrators will be faced with the growing challenge of continuing to provide worthwhile programs at all educational levels and for all students regardless of their varying abilities.

School personnel: Teacher organizations will become increasingly influential in shaping personnel policies and effecting curricular changes. The problems of teacher training and teacher turnover will gain additional

momentum as long as there is a shortage of teachers. Absence of a workable professional code of ethics will continue to be a major lack in our profession. Some method of determining teacher merit and paying accordingly will be demanded by the public.

School-community relations: Improved school-community cooperation will be imperative. Techniques of involving the pro-public school element and gaining the respect of the anti-public school element will have to be applied. Continuous programs of public relations will be necessary for effective results.

Length of school day and year: There will be a considerable pressure on school systems for increasing the lengths of the school day and the school year. Certificated personnel and teacher organizations will combat these pressures. If school systems do extend the day and year, these groups will demand increases in salaries based on increased work schedules.

Teacher organizations: Although many teacher organizations have forward-looking, professional programs, there are many others that dwell almost entirely on the material gains of teachers. It is becoming a more common practice, for example, for teachers to "ring doorbells" in quest of personal gains and to circumvent the administration in making requests for salary and other benefits.

Class size: There is virtually no educational justification in maintaining a similar class size for all elementary or secondary school classes. Many factors determine how efficiently a given class of any size may be taught. New approaches to class size might very well result in more effective use of school facilities and funds.

Check the law in your state

Your special board meetings may

by JOHN W. HAGEN

IT WAS A chance remark during a lecture on school finance at the University of Southern California that awakened my interest in the subject of special board meetings. The statement made was that "a surprising number of special board meetings are illegal."

On looking into the matter further I discovered some of the consequences of these illegal meetings.

For example, in an Indiana case, the board's decision to terminate a tenure teacher's contract was overruled by the court and found to be illegal because their school board minutes failed to show when the meeting convened. The court held the teacher's contract valid, and pointed out that the trustees constitute a statutory board and must find authority for their actions in the statutes.

In another case, in Wisconsin, a teacher was employed by two of the three members of the board at a special meeting, notice of which failed to state where the meeting was being held. The teacher thus employed did not hold a valid contract. In an action in Maine, a district meeting was held without notice and it was voted to borrow money with which to build a school house. The money was borrowed and the school built, but the district was not held liable under its contract. The court said, "There does not appear to have been any notice of the meeting given. The

meeting not having been legally called, the district could not be bound by its action; it was altogether inoperative and void."

All school board or district resident meetings are governed by carefully laid out legal principles. All persons entitled to attend such meetings must have notice of them. The only exception is in the case of regular meetings in which the dates are a matter of record; those who may attend are expected to keep themselves informed.

The experts in the field agree that in the case of special meetings the call is different and those entitled to attend must be given notice according to the state statute, which should indicate the time, place and nature of business of the special meeting. Any action taken by a board at a meeting of which inadequate notice is evident generally is held void. Therefore, it is important for superintendents and board members to inform themselves on matters of such vital importance.

Exceptions

However, there are exceptions to the rules regarding notice—and while the courts demand we follow the statutes, they have ruled in the favor of boards' action when no notice was given and immediate action was taken. The courts have allowed the boards to depart from established laws regarding special board meetings but these test cases were usually *emergency* situations in which the lives or health of children were in jeopardy or in which there was

serious damage to property. In Chester, Pennsylvania an emergency developed which demanded immediate action. Without waiting to hold a special board meeting, assistance was called in. When the bill was presented action was brought to test the right of the board to pay it. The courts backed the board to pay it.

In Michigan the courts held that notice must be in writing and served 24 hours in advance of the meeting. It was decided in 1954 that this was not applicable to cases in which the matter considered by the board was ministerial rather than discretionary in nature. Other cases involving mass illness after lunch and a burst water pipe, which were emergency conditions acted on by the board, were sustained by the courts.

In California in 1942 a 5-man board with two vacancies called a special board meeting to remove a teacher. Three members were present. No notice was given. The teacher brought action against the board contending the meeting was illegal. The statutes provided that special meetings be called by giving at least two days' notice. The board contended that while formal notice was not given all board members were present and agreed to waive the requirement of notice. The court accepted the board's action as legal.

Adjourned meetings

Many school districts are getting around the legal machinery of special board meetings by adjourning to a future date, thus not having special meetings. It is generally held

Mr. Hagen is superintendent of the Las Virgenes Union School District in Calabasas, California.

be illegal

that the board members need not be notified of meetings at which adjournment to a future date constitutes adequate notice. But this is true only for those present at the initial meeting.

Some time after adjournment has been voted, someone thinks of some action that should have been taken but was neglected—the board considers the action and votes on it. Then the question arises as to the legality of the action taken. The courts are in agreement on this issue. They believe that the action is legal if the members do not leave the meeting place. "An adjournment is an act and not a declaration. It is an act of separation and departure and, until this takes place adjournment is not complete."

What is the law in your state?

In order to find out about the individual practices and laws of the various states, I sent a questionnaire to each state superintendent of instruction and Washington, D. C. It contained five questions: 1. Who may call a school board meeting? 2. How many days' notice must the board members have prior to a meeting? 3. How are notices for a special board meeting served? 4. Can business other than that specified in the call for the special board meeting be acted on? 5. Are special board meetings open to the public?

Of the 48 states and Washington, D. C. which were queried, 42 states and Washington reported. The results were startling in that answers to the questions differed so widely. (See

Provisions on special board meetings vary from state to state

Who may call a special board meeting?

The largest number of states (32 percent) report that the board president alone calls the meeting; 20 percent, the president upon the written request of the majority of the board; 28 percent, miscellaneous requirements; 19 percent have no provision or law at all.

How many days' notice must board members have prior to a meeting?

It is an elementary principle of law that all of the members of a corporate body who are entitled to participate in its affairs must be given actual or constructive notice of all corporate meetings. School district meetings, therefore, are not legally constituted unless they are in strict conformity with the statutory requirements. The notice also must stipulate time and place and, if the meeting is a special one, the business to be transacted.

Most states—40 percent of them—have no specified provisions. The rules are drawn up by local boards. Two days' notice is given in 20 percent; the remaining 40 percent average about four days.

How are notices for special board meetings served?

An overwhelming 59 percent of all the states reporting and Washington, D. C. have no law in this matter. Notices are served personally by the clerk in 15 percent of the states; five other means of notice were mentioned.

Can business other than that specified for the special meeting be acted on?

In this area the data falls into three major groups. Almost one third stated that no business other than that specified can be transacted. One third has no law and another one third does transact business other than that stated in the notice.

Are special board meetings open to the public?

People, as Woodrow Wilson once said, "desire open covenants . . . openly arrived at." The opportunity to attend board meetings should always be present. Some 43 percent of the states reported that all meetings are open to the public; 29 percent have open meetings but can have closed executive sessions; 21 percent have no legislation. Two stated that their special board meetings may be closed to the public. Generally, it is recognized that in some cases meetings can be closed, such as in a discussion of individuals before rehiring. However, when direct action and voting take place, the meetings are open.

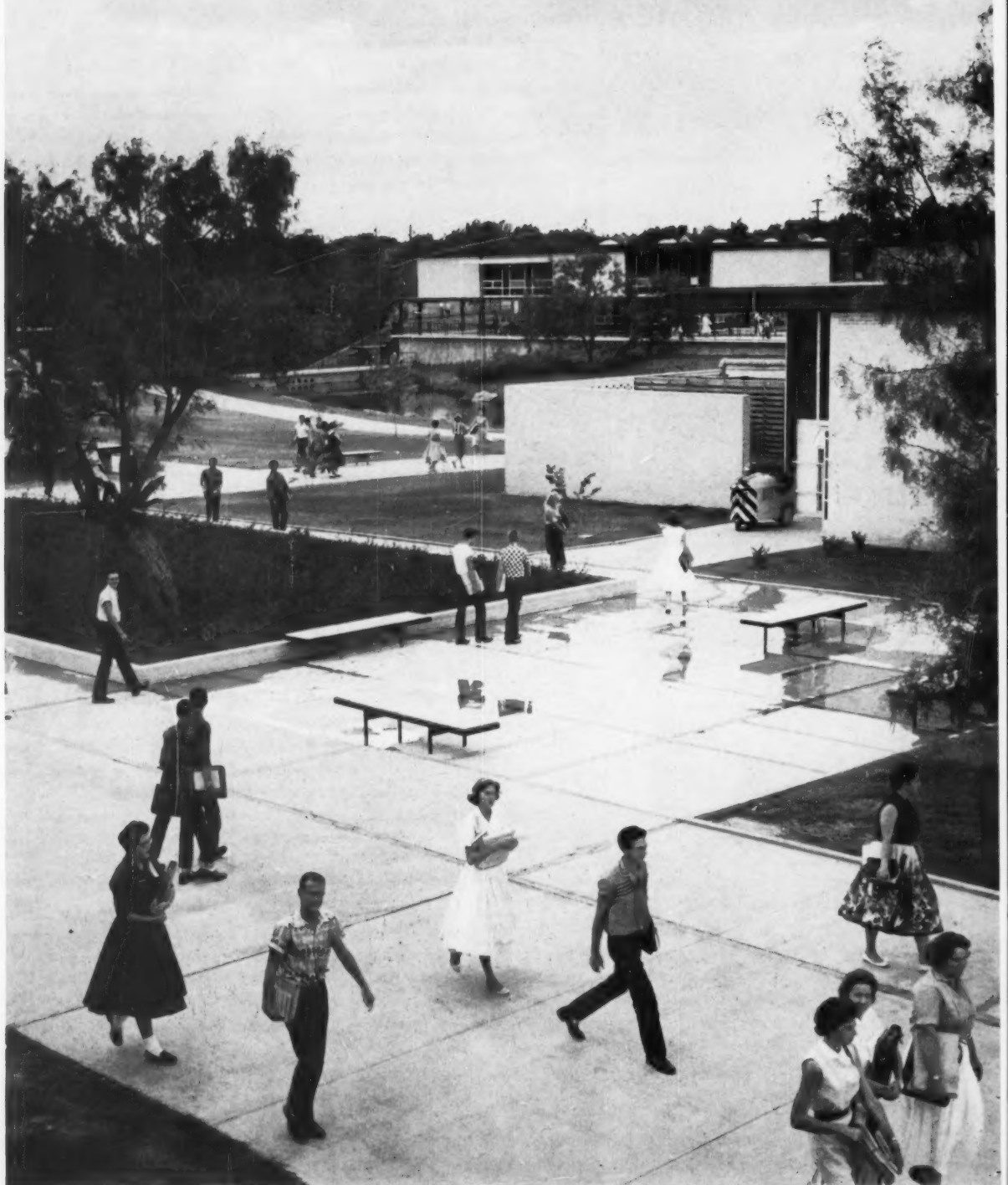
box above for summarized replies.)

Virtually all school boards in cities above 2,500 in population have some regular meeting place. The same is true of about 85 to 95 percent of boards of other types, with one exception—only 60 percent of the rural district boards meet regularly at the same place. Ordinarily the various state statutes provide that the local board meet usually the first month of the fiscal year and at that

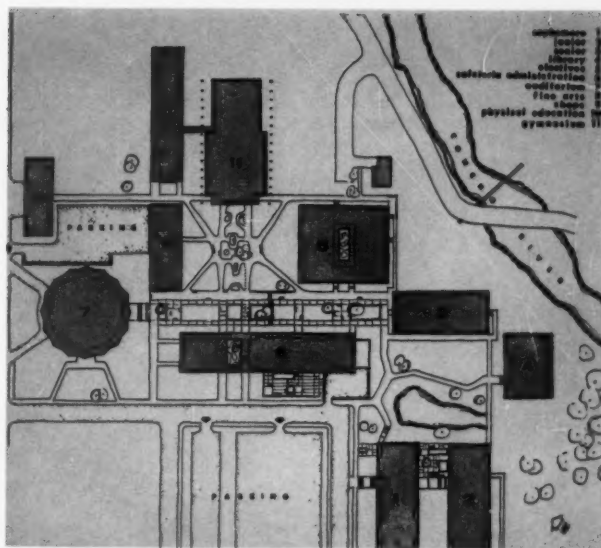
time make provisions for a regular monthly meeting date. The rules regarding special board meetings and who should call them differ widely, calling for study by individual boards of different states.

For the board's own protection and for the good of the district, the provisions of the law should be studied and followed as closely as possible. Ignorance of the law is no excuse.

OASIS IN TEXAS...



San Angelo Central High School, San Angelo, Texas was designed by Caudill, Rowlett and Scott, Architects, Houston, Oklahoma City and Corning, New York. Associate Architect was Max D. Lovett.



BIG, BEAUTIFUL AND BUDGETED. These are the keynotes of the new Central High School in San Angelo, Texas. At a cost of \$3.5 million a campus-type school was constructed which houses 2,500 students and can accommodate 500 more. Big . . . 30 acres, incorporating a man-made site drainage pond, 11 buildings of outdoor-indoor flexibility . . . a separate auditorium and gymnasium with a pool . . . all with a small school atmosphere of quiet and repose. Beautiful . . . landscaped outside "rooms," walks and quads which are both compact and spacious . . . simplicity and color in design . . . classrooms in wide open loft spaces divided by glass screens . . . outdoor reading rooms and cafeterias, with river views. Budgeted . . . savings incurred by module framework, lowered ceilings, no weight-bearing walls or partitions within buildings . . . repetition of architectural designs cut costs . . . air conditioning eliminated much janitorial staffing.

Complete coordination in planning among the educators, board of education, community, architects and engineers was achieved by having the projection of the school established six years prior to its completion. Two years were donated to educational planning and architect selection; the next two years were spent planning with the architects; the last two years were for actual construction. See San Angelo High School here and on the next four pages. . . .

Photos: Ulric Meisel—Dallas

Problem site was used to advantage by building a drainage pond—now the picturesque focal point for the campus.



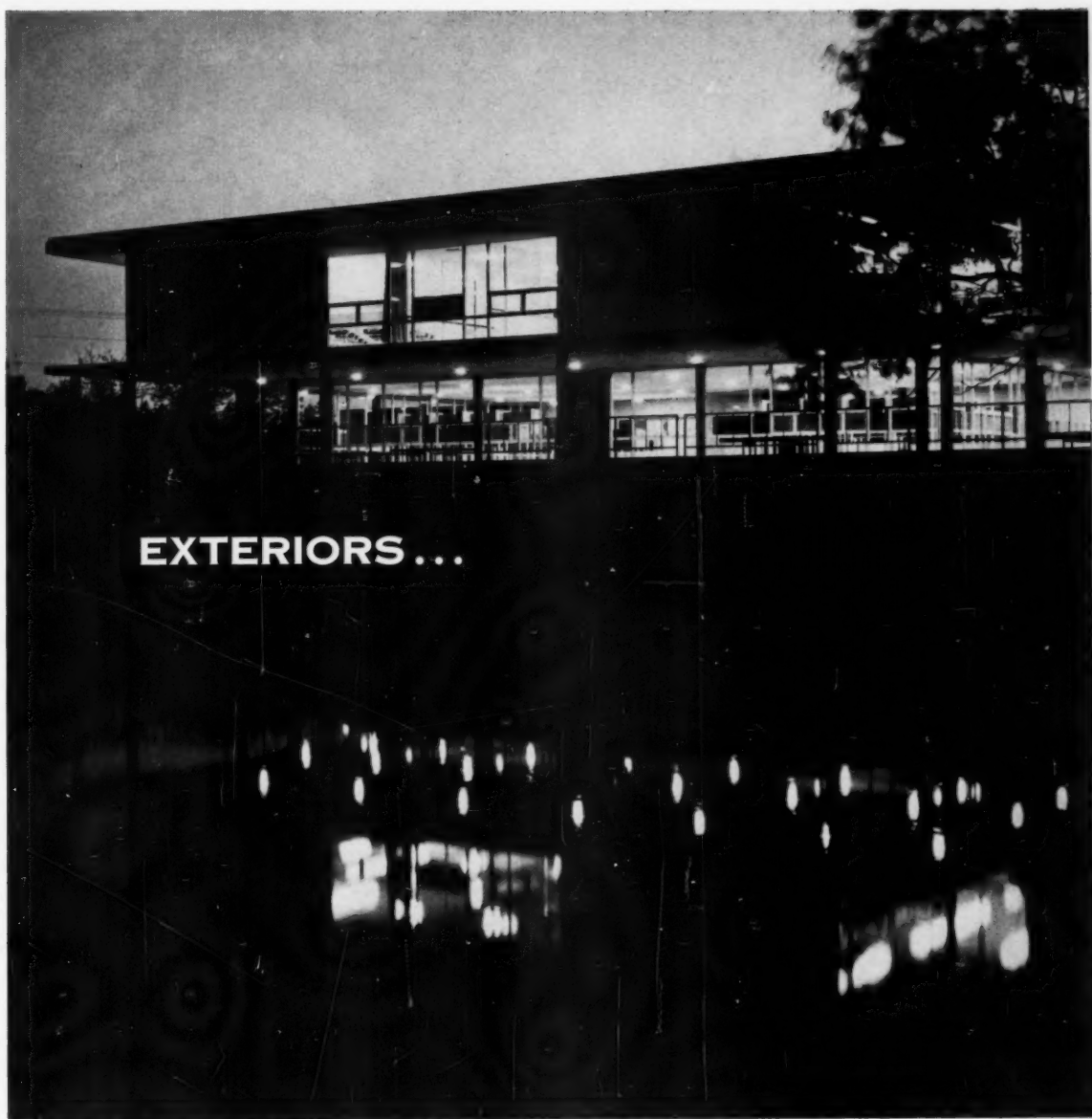


Above, the sophomore and junior halls have locker areas at ground level. The sloped terrain made possible these one-story buildings which extend out over the area for lockers and a covered social meeting place.

Looking down the mall from the senior building, one can see the circular fan lines of the auditorium. The walks are an integral part of the campus atmosphere, and provide space for foliage, light and shade.

Below, the entrance court of the school gives the initial view of the campus. At the left are the administrative offices; the student center is at the right and the gymnasium can be seen in the background.





EXTERIORS...

A night view of one of the class buildings outlines the glassed-in locker segments and a few classrooms, all reflected in the pond. In Texas, water is a particularly welcome and refreshing sight.



Reading rooms face the river. Three carpeted lounge areas alternate with formal study tables. Student carrels are along the window wall.



INTERIORS...

The formal study area of the library has 4-student tables, considered more conducive to good study habits. On the left are reference books and to the right is the informal reading lounge area. Notice lowered ceiling. Below, the interior of the 1,200 seat auditorium, displaying the curved, continental seating arrangement. This plan results in none of the seats being more than 80 feet from the stage nor more than 65 feet from an exit.

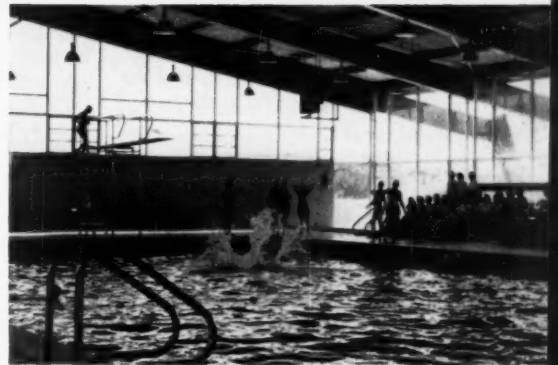


The lobby-corridor encircling the auditorium seating area is used for student exhibits. Exterior doors open onto covered, outdoor lobbies.



This view of two classrooms seen from the corridor shows how the classroom buildings are open loft spaces subdivided by glass screens. There are openings onto the corridors from each classroom, no doors.

The exterior walls of the gymnasium and its swimming pool are almost entirely composed of glass, with a minimum of low brick walls. This design provides the atmosphere of an outdoor pool.



The student center features a cafeteria which has two serving lines, two dining levels and a booth area in connection with a milk-dessert counter (shown here). There is also a snack bar which serves an outdoor dining terrace.

Help for those who can NEVER

WHETHER OR NOT the less fortunate are given opportunities to learn in accord with their abilities depends to a great degree upon the philosophy of school administrators. The school is a tax-supported public agency of society and its function is to serve the child regardless of race, color, creed or mental ability. It is important that school authorities think in terms of the child and not of administrative convenience.

The rights of each child are important regardless of his mental status. Who can say that trainable mentally retarded children shall have these rights cut off because they differ from others? Who would deny these children the right to develop in the social setting of a group, under the direction of properly trained personnel?

It is apparent that the problem of caring for the trainable mentally retarded cannot be solved by collecting all of these children and sending them away to an institution. The trainable mentally retarded child is best served in his own community and the school is the agency best qualified to serve him. That is the belief of the school authorities in Evansville, Indiana and that is why they administer a program for these children.

Today, more and more mentally retarded children are given an opportunity in the public schools. A greater number of parents now accept their mentally retarded youngsters and are asking that they be

given equal educational opportunities. More colleges now offer courses to teachers so that they may better understand and teach the mentally retarded child.

Broadly speaking, the mentally retarded are divided into two large categories. The educable mentally retarded have an intelligence quotient, on a Stanford-Binet or a Wechsler test, of 55 or above. The IQ of the trainable mentally retarded is below 55 and above 30. In Evansville a class was started two years ago for trainable mentally retarded children between the ages of 16 and 21. It operates according to a state law that requires special education for handicapped children "who, because of physical and/or mental disability, are incapable of being educated properly and efficiently through normal classroom in-

struction but who, with the advantage of special educational programs, may be expected to benefit from instruction in surroundings designed to further the social and/or economic status of these children."

The idea of the school authorities in organizing this class for trainable mentally retarded was to provide the child with a place where he may learn to do or make something worthwhile; later to perhaps be able to partially support himself. Social adjustment, self-care, economic usefulness, appreciation and respect for others are taught the trainable mentally retarded.

Before this program could be started, application for the class had to be made to the Division of Special Education of the State Department of Public Instruction.

Facilities for the class became a



"More organizations of parents of mentally retarded children are forming and are affiliating with state and national associations for these children."

Dr. Weber is director of the department of health, physical education and special education in the Evansville, Indiana school system.

Non-educable children can be trained for purposeful living. Here is one school's program for these usually neglected.

GROW UP

by ELMER W. WEBER

problem until we decided to use a building not being occupied at one of the elementary schools. This building was separate from those housing the children of normal intelligence. Since the trainable mentally retarded are older children it was

exceeding 80 percent over and above the cost of the normal child. For example: if the cost of educating the trainable mentally retarded is \$600 and the cost of the normal child is \$300, the reimbursement would be 80 percent of \$300, or \$240.



Practical training is afforded the girls by the kitchen-classroom combination.

deemed best for everyone that they not associate with the other school children at recess, lunch or assembly periods.

The state law does not provide transportation or lunches for these children; it is the responsibility of the parents to provide both. The parents were able to secure the bus service that transports the other pupils, at a low cost of 25 cents a day per child. The school did not enter into this agreement at all; it was between the parents and the coach company. Children bring their own food and prepare it under supervision of the teacher.

The Board of School Trustees is reimbursed by the State Department of Public Instruction at a rate not

It is felt that by the age of 16, these children need to be trained to do something that will be profitable for them. The classrooms are well equipped with good household appliances—electric stove, dishwasher, refrigerator, automatic washer and dryer, electric and treadle sewing machines, steam iron and ironing board, a dining room suite and breakfast table and chairs. Dishes, glassware and silverware are provided to teach the boys and girls table etiquette. There are work tables for crafts such as basket weaving and leather tooling. The girls are taught to iron and do simple sewing; they wash, dry and fold the linens used each day in the school cafeteria.

The boys perform all of the custodial work required in the two rooms. The students sanded, finished and painted many of the pieces of furniture there. The girls made curtains. The class often folds letters and stuffs envelopes for organizations. Each day, they have a period for dancing.

It is hoped that, as time goes on, it will be possible to train the boys for such work as basket making, bookbinding, simple carpentry, dishwashing, gardening, packing, ushering, messenger work, porter work and delivery work. For the girls—ironing, simple dressmaking, housework, knitting, gift wrapping, laundry work, waitressing, millinery, hotel work, hospital and kitchen work.

A committee consisting of the principal of the school, the director and supervisor of special education, the teacher and assistant teacher studies each application carefully and approves the child's entrance into the class. When the child is accepted he is given a thorough physical examination, psychological tests and a diagnosis. Only those who are physically able and have an IQ score between 20-55 inclusive are admitted.

Parental cooperation was very fine in getting this class started; the parents even donated most of the facilities for the rooms, in the way of drapes, slip covers, furniture, linoleum, victrola, piano and other necessary items.

This class is the only one of its kind in this area. The children, parents and school authorities feel that it is filling a necessary and extremely worthwhile place in our community.

"Batch" Processing Scored By Educators, Architects

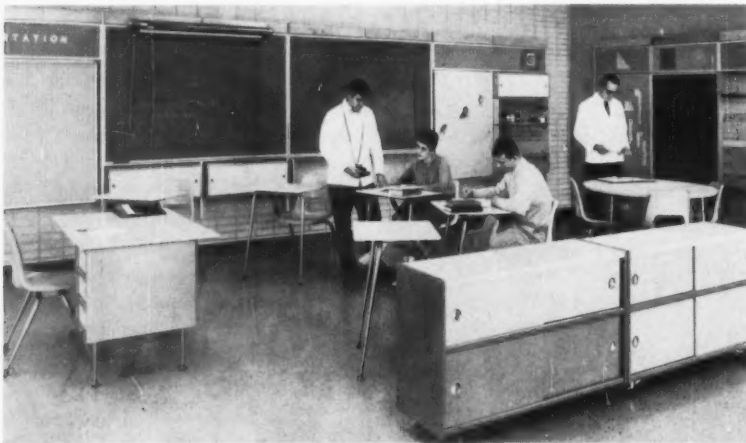
KALAMAZOO, Mich.—"The classroom has been traditionally a cell. It's time to stop freezing the building structure into these outmoded units and to use space openly and freely to meet the real needs of students and teachers."

This was the opinion expressed by Harold Gores, president of the Educational Research Facilities Laboratories, at a special seminar held to dedicate the Brunswick-Balke-Collender Company's new educational research center here.

Mr. Gores told the group of Brunswick distributors, school administrators and architects that the method of processing classes by the "batch" system—turning them in and out of rooms averaging 30 pupils each—was archaic and could not meet the challenge of providing the sort of education today's child needs.

William W. Caudill, architect from Corning, N. Y., expressed it more strongly. "Bottling kids up and calling that a class" is damaging their learning potential, he said.

Reflectivity Tested



Reflectivity on school furniture is being tested in the model classroom above. The classroom came into being as a result of consultation with architects, designers and educators. The center and the classroom, when used in conjunction with Brunswick's testing and model shop facilities, will provide a research laboratory, a meeting place and a visual aid to educators.

Tailoring Teaching to Individual Needs Requires Increased Interest in Testing

JUDGING FROM educational activities in late 1958, tests of ability, achievement and personality will probably get prime attention in 1959.

This new interest in testing stems from: (1) a re-awakened desire to further the goal of the best education for each student according to his own needs and abilities; and (2) an increased awareness of a need to identify the academically talented.

Tests—by gauging academic progress, strong and weak points, interest and personality—are helpful in tailoring a mass education system to the needs of the individual, and also

Other members of the panel included: William Donaldson, Hagerstown, Md. public schools; architect John Richards; and Dave Chapman, Industrial Design consultant.

Dedication of the center and a model classroom by Brunswick's school equipment division preceded the seminar. The center will be used for investigations into the educational needs of present generations.

in pinpointing what Max Lerner calls "the carriers of promise."

Because an assessment of human talents serves the manpower interests of the nation, even the Federal Government has stepped into the testing picture. A new four-year project—authorized under the Education Act—will provide funds to induce the states to make testing a larger part of every school system's program.

The program is expected to pro-

Carr on "quality"

A RECENTLY-PUBLISHED booklet entitled "How Good Are Your Schools?" contains the following statement by William G. Carr, executive secretary of the National Education Association.

"Our frontier in education for the next 20 years is quality. Basically, in the last century, the battle of quantity has been won. There are many skirmishes and rear-guard actions still to come, but the principle of extensive and universal education is firmly established.

"As quantity was the primary goal for the past century, so will quality be our chief aim for the next. We have been concerned that every child get into school. Now we must ask how much each child gets out of school."

vide a representative picture of the entire high school population, including the aptitudes and abilities of the students. It will also, it is hoped, demonstrate the influence and effectiveness of the schools' instructional programs.

The effectiveness of such a project depends ultimately on how the information gathered is used. Test-makers constantly stress that tests

alone will not suffice for judging a person. They do not measure "innate intelligence" nor sense of values, they warn.

At a meeting of educators recently in Williamsburg, Va., Arthur E. Traxler, executive director of Educational Records Bureau, warned his listeners that many of the people who must take leadership in the development of state programs of testing are "not themselves well prepared."

However inadequately they are used at first, there is no question that testing is here to stay. In his year-end report of the ten-year-old Educational Testing Service at Princeton, N. J., Henry N. Chauncey, president of that organization, called the year 1957-58 "the end of one era and the beginning of another—for Educational Testing Service, for testing in general, and for education as a whole."

Almost in the same words, Max Lerner, in his column in the *New York Post*, said; "... we have come to the end of one phase of American educational history ... the end of the great education revolution that made schooling free, universal and compulsory ... our task today is to build a new democratic educational elite, made up of the carriers of promise."

Conant Releases his Report On American High School

THE CONANT REPORT, anxiously awaited since 1957, has at last been released to the public under the title "The American High School Today" and is available in paperback and hard cover editions from McGraw-Hill.

James B. Conant, president emeritus of Harvard University and former ambassador to the Federal Republic of Germany, began his study of the comprehensive high school in 1957 under the auspices of the Carnegie Corporation.

The present statement, which Dr. Conant labels "a first report to interested citizens," calls upon school staffs and interested citizens for renewed efforts to improve the schools, and makes 21 specific and numbered recommendations.

Murray, Metcalf Introduce Salary, Construction Bills

WASHINGTON—School construction and teacher salary bills have been introduced in both houses of Congress.

The Senate bill, called the "School Support Act of 1959," was introduced by Sen. James E. Murray (D-Mont.) and 26 other senators in the first week of the 86th session. The House bill was introduced by Rep. Lee Metcalf (D-Mont.) but its championship was taken over by Rep. Frank Thompson Jr. (D-N. J.) when Representative Metcalf was appointed to the House Ways and Means Committee. Members of this

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committee are required to give exclusive time.

Both measures propose federal financial grants to the states on the basis of each state's estimated school-age population, to be expended either for public school construction or teachers' salaries.

Cousins, Larson Honored By NYS Citizens Committee

NEW YORK—"The nation could succeed in mounting a program that will give us highly qualified scientists by the carload, but that doesn't necessarily mean that we have met the principal need, which is to enable citizens to determine how a free society can best be maintained."

This was the warning sounded by Norman Cousins, graduate of New York City's public schools, editor of *The Saturday Review* and author, before the first Citizen Achievement Awards luncheon, sponsored by the

New York State Citizens Committee for the Public Schools.

Mr. Cousins was honored for the vision of excellence he holds for education in relation to issues of our day. Also honored was Roy E. Larsen, president of Time, Inc., as "the pioneer who symbolizes the layman's significant role in public education."

Mr. Cousins, in accepting his award, emphasized our need for "the kind of education that will enable men to deal with the total environment of the 20th century." An edu-



Norman Cousins (far right) and Roy E. Larsen (third from right) were guests of honor at the Citizens Award Luncheon. Also seated at the main table were (l. to r.): Ward Melville, president of the Setauket Board of Education; Violet Edwards, executive director, and Max J. Rubin, president, of the New York State Citizens Committee; and Harry Brandt, chairman of the luncheon.

cated man, he said, "takes the trouble to see the problem at its largest but he also understands the varying parts."

The luncheon was held to dramatize the citizen's dynamic role in public education, and to focus attention upon the potential of people who are the products of public schools, "the alma mater of most Americans." Harry Brandt, president of the Independent Theatre Owners Assn. and active member of the Committee, chaired the event.

Marion Folsom, former Secretary of Health, Education and Welfare, also addressed the luncheon, emphasizing the importance of the work of the New York State Citizens Committee, a non profit, educational organization serving 1200 New York State communities. The Committee's statewide service program stresses fact finding by broadly representative citizen groups as the basis of productive effort for school improvement.

Record, Not Area of Study Counts in Medical School

CAMBRIDGE, Mass.—Able college students can put their major efforts into studies in non-science fields and still do well in medical school, according to a study of 1,390 men who graduated from Harvard College from 1949 to 1956.

The study, conducted by Harvard University's Office of Tests, revealed that pre-med majors did better in the first year of medical school but, by the third year, those whose undergraduate programs were broader had almost equal class standings. Social science majors ranked ahead of pre-meds at Harvard Medical School.

It is the student's "record, not his field of concentration, that the medical school admission committee will evaluate," reports Dean K. Whitla, director of the study.

Nevertheless, students have been moving increasingly toward "pre-med" concentration, Mr. Whitla says. In 1949, 47 percent of the students observed took pre-med courses; by 1956, 67 percent did.

Lack of Motivation Blamed For Shortage of Engineers

NEW HAVEN, Conn.—Lack of motivation and the "double standard" were two possible answers given recently to the question of why the Soviet Union is gaining ground on us so rapidly in the technical field.

Newman A. Hall of the Yale Engineering faculty said in a special interview here that, in comparison with the Russian system, the American system of engineering education has uncertain objectives, lacks positive definition and has less prestige.

Advance from USOE

WASHINGTON—The Office of Education, in cooperation with the American Society for Engineering Education, has issued the following advance report on its survey of engineering enrollments and degrees.

Though graduate enrollments in engineering reached new peaks, and the number of degrees awarded continued to rise, a drop of 4.5 percent in undergraduate enrollments resulted in the first decline in total enrollment in seven years.

According to Prof. Hall, who has just returned from a tour of Russian engineering schools sponsored by the Exchange Mission on Engineering Education, the Russian engineering student works harder and longer than his American counterpart because of special motivation.

"It's not fear which motivates the Russian student," said Prof. Hall, but the knowledge "that his ability and efforts will be rewarded. Success in a given field means money, position and high esteem. . . all practical incentives."

Another possible reason for our technical shortcomings was given by Arthur S. Flemming, secretary of the Department of Health, Education

and Welfare. Dr. Flemming hit out at the "double standard" in American society which, he feels, is acting as a deterrent to our national security.

More women must get into the science field if the United States is to keep pace with the Soviet Union, he told a session of the American Association for the Advancement of Science. Under the present "double standard," they are not only unwelcome in the graduate engineering schools but, when they are trained, they are not employed at their full potential.

Betty Lou Raskin, head of plastic research and development at Johns Hopkins University, told the session that the Russians graduated more women engineers in one year than this country had done in its entire history.

The present increased interest in engineering education is probably at least partially a result of two recent surveys.

One of these, made by the National Science Foundation, indicates that we will fall short of our predicted science and engineering manpower needs by some 15,000 a year, each year until 1965. The Office of Education, in another survey, reported that fall enrollments in engineering fell off sharply at the beginning of this school year.

History of Negro Part Of Bronx School Curriculum

NEW YORK—Since September, the history of the Negro has been incorporated in the history program of a Bronx public school having a 90 percent Negro enrollment.

Three extra sets of books have been purchased for the 4th, 5th and 6th grades by the Curriculum Committee of Public School 63, in cooperation with the school's PTA.

The school's aim is to spread this idea to all elementary schools in New York City.

PROOF THAT HeyWoodite

LIVES UP TO ADVERTISED CLAIMS AS
"AN INDESTRUCTIBLE MATERIAL"

Unretouched photos show how
HeyWoodite withstood
fire at the Palmyra Public School

"...the only things
that could be salvaged
were these desks"

Palmyra Public Schools

Palmyra, New Jersey

I. NEWTON COWAN, ED. D.
SUPERINTENDENT

February 10, 1958

Mr. Carl Lugbauer
Heywood-Wakefield Co.
Gardner, Mass.

Dear Sir:

Enclosed you will find photographs of the Heywood-Wakefield study top desks which were salvaged from our recent fire. The one photograph shows one of these desks before it was properly cleaned, although it had been washed previously. The others show the desks after cleaning and in use.

These desks are now in the temporary classroom in the locker room of the field house. The room from which they came was not completely destroyed by fire, but the only things that could be salvaged were these desks.

After our experience with your solid plastic and chrome furniture, we feel that it is practically indestructible.

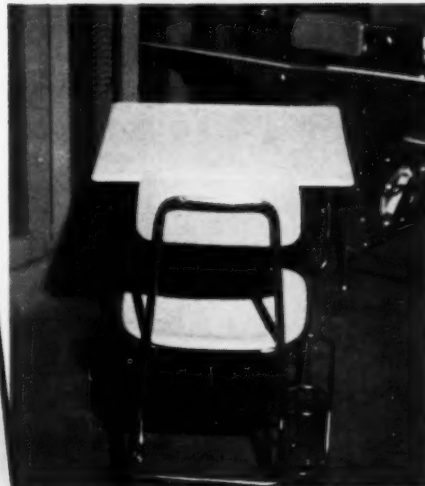
Sincerely yours,

I. Newton Cowan
I. Newton Cowan
Superintendent

INC:MLM
encls.

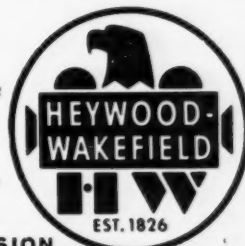


DESK TOP AFTER THE FIRE



SAME DESK TOP AFTER WASHING

Dr. Cowan has not solicited pay for, nor has he been paid for the use of this letter or the accompanying photographs.



SCHOOL FURNITURE DIVISION

HEYWOOD-WAKEFIELD COMPANY • MENOMINEE, MICHIGAN

Air Conditioned Schools:

*they cost no more to build
than less modern buildings*

IF YOU ARE planning a new school building, one of the most important decisions you have to make is whether or not to plan for air conditioning.

For this reason, it is necessary to realize that, in most cases, you can build a *better school for less money*—if you include modern air conditioning. This is because a building planned for air conditioning is more compact.

**Today, more than ever before,
there is a need for modern
air conditioning in our schools.**

In many cases, constructing an air conditioned school building saves enough dollars *to pay for the air conditioning equipment itself*. On the other hand, it only requires a mere 3.9% increase in teaching efficiency to *pay for complete year-round air conditioning*.

Studies show that because of body heat and the sun's rays it takes outside air of less than 60 degrees to adequately cool a school building without air conditioning. When outside air is more than 60 degrees, classrooms are sure to be uncomfortable.

Below are some Government figures showing the percentage of school-year classroom hours, in various cities, when the temperature is *above sixty degrees*.

These, then, are the percent-

CITY	% classroom time, during the regular school year, that temperature is above 60 degrees
LOS ANGELES.....	46%
DALLAS.....	62%
WASHINGTON, D. C.....	44%
ST. LOUIS.....	43%
CLEVELAND.....	34%
CHICAGO.....	32%
MINNEAPOLIS.....	25%

ages of classroom time when air conditioning is *vital*, if adequate efficiency in teaching and learning is to be maintained in the school building. Of course, these figures do *not* include the important summertime, when our schools are being used more and more each year.

More advantages of air conditioning

Besides the economic advantages of an air conditioned school, there are numerous other important benefits. First, and most important, is the *increased efficiency* of both faculty and students. This means better teaching—better learning. It can also result in less absenteeism.

Another important benefit is *cleanliness*. A cleaner atmosphere is a more productive atmosphere

THE SCHOOL EXECUTIVE



—more conducive to learning. It also means a substantial saving on cleaning and maintenance bills.

Air conditioning can turn summertime into learning time

With an air conditioned school, summer study becomes more popular. The school can be used in the hottest weather, for both daytime and evening classes. It can also be utilized for recreational activities that would be impossible without air conditioning.

Consult an expert

Today, more than ever before, air conditioning is important for our schools. To learn more about the economies of air conditioning, consult your architect or air conditioning dealer. Or write: Honeywell, Department SN-3-43, Minneapolis 8, Minnesota.

March, 1959

*Proper classroom temperatures
mean more take-home learning*



This is the attractive Honeywell Pneumatic Round Thermostat for heating and air conditioning. It is the most accurate pneumatic thermostat available. With one in every classroom or recreational area, the teacher can adjust the temperature to fit the specific activity. Remember, only a thermostat *on the wall* senses the temperature the way an occupant does.

Honeywell



First in Control



KNOWING YOUR AUDIO-VISUAL NEEDS AND PRESCRIBING FOR THEM IS THE JOB OF YOUR PROFESSIONAL NAVA DEALER

The NAVA member is a specialist in everything audio-visual. You save money, time, and worry when you learn to rely on him for every kind of audio-visual need.

PLANNING an A - V program for any purpose, the NAVA Dealer can save you false starts and help make your program more effective.

SERVICE on any kind of projection equipment is the NAVA Dealer's specialty.

RENTAL of projectors, sound equipment, tape recorders, to save you time, money, and shipping problems.

FILM LIBRARY SERVICE is offered by NAVA Dealers.

Rely on the recognized expert . . . call in your nearest NAVA Dealer for any kind of audio-visual help . . . make him a part of your audio-visual program.



National Audio-Visual Association, Inc.
Fairfax, Virginia

Please send me a list of authorized, professional NAVA Dealers coded to show services and rental equipment offered by each.

Name _____
School _____
Address _____
City & State _____

Population Growth Problem Considered by Suburbanites

NORTH TARRYTOWN, N. Y.—An expected population increase of about 43 percent in Westchester in the next 15 years will make it necessary for school districts to pool their financial resources, according to a consultant on community planning.

George M. Raymond, a member of the American Institute of Planning, made this prediction at the second annual Westchester Citizens Conference on Education, held at the Sleepy Hollow School here recently.

Mr. Raymond was one of the two keynoters at the conference, attended by over 300 lay citizens, school board members, educators and PTA representatives. Theme of the meeting was "How Citizens Can Work More Effectively For Their Schools in a Changing Westchester."

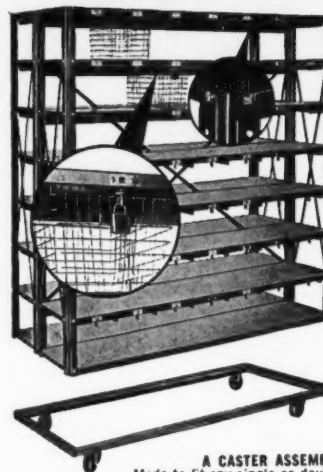
The second keynoter, Ernest A. Gray, Jr., member of the Board of Governors of the American Association of Advertising Agencies, debunked the mistaken attitude that the citizens' committee is a "kind of sheriff's posse or rescue squad whose chief function is helping the School Board surmount a crisis."

The most successful citizens' committees, he said, are built on "full board and administration backing, full realization that they are fact finders and recommenders not Board policy makers, and of course years of solid tangible accomplishment."

Objective of the conference was two-fold: to acquaint citizens with the changes taking place in the economic and social character of Westchester County; and to consider what these citizens can do to help their schools meet the challenges posed by these changes.

Citizens of the community related to the municipal government were included in the invitation lists in an attempt to bridge the existing gap between village and school district. Donald V. Buttenheim, president of Buttenheim Publishing Corp., was conference chairman.

Any Size
**GYMNASIUM
BASKET
RACKS**
WITH RECESSED HASPS



A CASTER ASSEMBLY
Made to fit any single or double rack, may be added or removed at any time.

Insist on Neubauer Basket Racks for these exclusive features:

1. Rigid twin-post corners make the whole rack stronger,
 2. Your choice of any size to fit odd baskets or limited space*,
 3. Easier assembly, hasps and dividers installed at the factory,
 4. Recessed hasps can't snag clothing or cause injury, (Hasps omitted if desired)
- plus a choice of four popular baked enamel finishes, plated hardware, sturdy bracing, and other details of quality.

**STORAGE
SHELVING**
with patented
twin-post corners



AND

**LIBRARY
SHELVING**



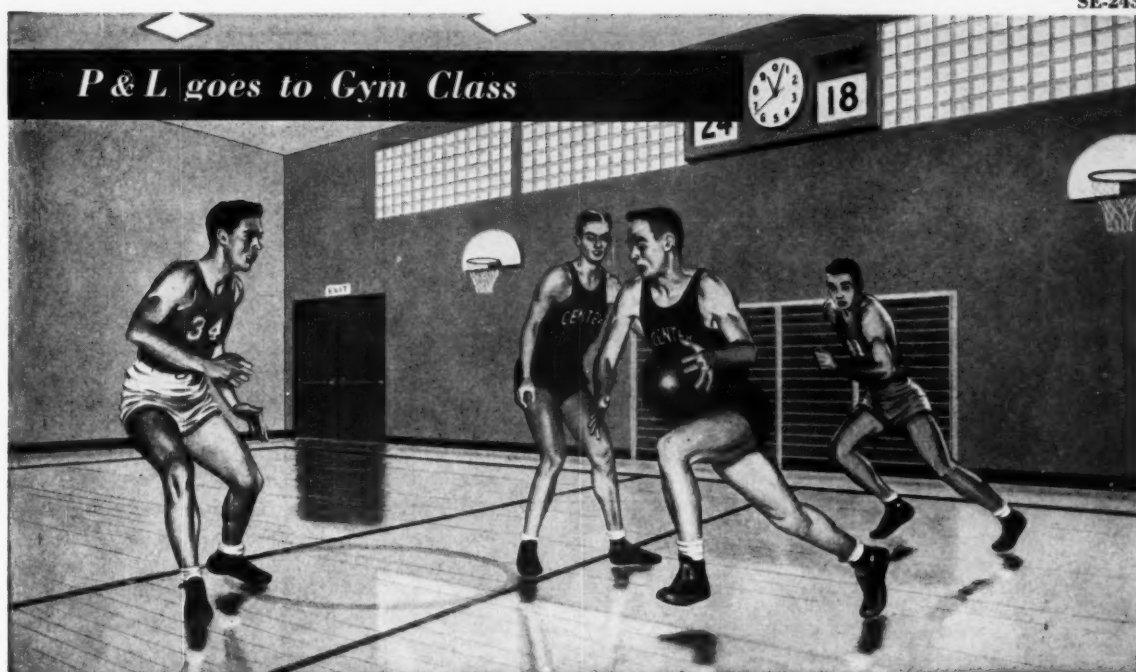
with beautifully finished end panels, can be furnished in any size to fit your room dimensions. Baked enamel colors are green, grey, tan and beige.

***No extra charge**

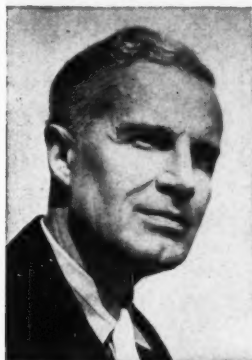
You don't pay a premium for odd sizes when you buy Neubauer racks and shelving.

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517 LOWRY AVENUE N.E.
MINNEAPOLIS 18, MINN.

THE SCHOOL EXECUTIVE



P & L goes to Gym Class



STUDENTS PLAY MORE THAN 1500 GAMES A YEAR IN THIS GYMNASIUM

Basketball games played in classes plus intra-mural and varsity schedules add up to more than 1500 games a year on this gym floor. It takes a finish like Pratt & Lambert "61" Gymnasium Floor Finish to withstand such abuse.

P & L "61" Gymnasium Floor Finish dries with a much harder film than floor varnish. It provides a surface that stands up exceptionally well under abnormally heavy use, and prevents permanent marring caused by grease, dirt or burns from rubber shoes.

New Lyt-all Flowing Flat on walls and ceilings, and Vitralite Enamel on woodwork and trim stay bright and new looking, too.

Maintenance men are generous with their praises for Pratt & Lambert Paints and Varnishes. Board members and tax payers like the savings of longer periods between repainting.

FOR COLOR suggestions and information on how Pratt & Lambert can help you solve maintenance problems, clip the coupon.



Even an overcrowded kindergarten room is easy to keep new and clean looking when walls are painted with Pratt & Lambert New Lyt-all Flowing Flat.

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75 Tonawanda St., Buffalo 7, N. Y.

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- ☐ Please send me free color cards.
☐ I would like color suggestions by an experienced Pratt & Lambert representative.

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they respond...

when you teach with the
AO Spencer Opaque Projector

SO EASY Teaching and learning are much easier with this unique projector. You just flip a switch to project a big, bright picture of your teaching materials exactly the way you want to show them...subjects become dramatically alive...and your class responds as a unit. You teach more effectively because you show what you mean. Learning is more fun this way.

SHARPEST IMAGE Coated objective optics cut internal glare and reflection. With the exclusive all-glass reflecting system, this guarantees a sharp, crisp image on the entire screen...edge to edge...corner to corner.

1,000 WATT INTENSITY High-powered illumination shows a clear, detailed picture in a semi-darkened room, or even a normally lighted room with shades up. The entire system is cooled by a quiet, motor driven fan...a constant stream of air over projected copy keeps it safe.

STURDY, PORTABLE The projector is built of rugged, light-weight, lifetime aluminum. Carry it anywhere. Precision mechanical fitting throughout assures permanent optical alignment.

Colorful, instructive 8 page BROCHURE available—Just clip and mail the coupon below for complete details and specifications.

**American Optical
Company**

INSTRUMENT DIVISION, BUFFALO 15, NEW YORK

Dept. 071
Please send me AO Spencer Projector
Brochure #SB3500.

Name _____
Address _____
City _____ Zone _____ State _____

SPOTLIGHT

Quote . . . unquote

• "What, precisely, is this moderation I am said to represent? First, let me say that, while I am stuck with the label and will not renounce it, I am starting no new cult under that name. Moderation is not invariably a virtue: truth is often highly partisan."

—BROOKS HAYS, former Representative from Arkansas, in an article in the N. Y. Times Magazine Section.

• "It is hard to look at what is going on without feeling a quick stab of pity for the bright youngster who is coming up to high school in the next couple of years. A decade ago it would have been a cakewalk; now they are laying for him. He is the engineer who will build the rocket that goes to the moon; or he is the statesman who will guide the world that the engineers make; or the poet who will find its soul. In any case, he must work like a son of a gun."

—Business Week, quoted in the NEA publication, Speakers Digest.

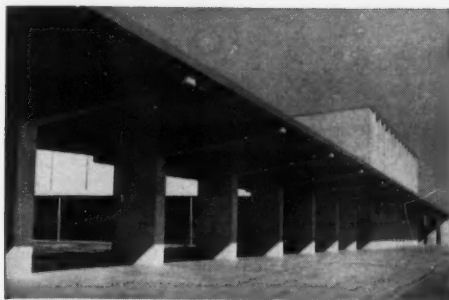
• "So long as education continues to be ritualized, we are bound to induce the feeling in our students that conformity to the embalmed knowledge of the past is learning. Excellence will be measured by one's success in passing the course, in performing the ritual."

—GEORGE M. BOAS, professor emeritus, Johns Hopkins University, at the convention of the Association of American Colleges.

• "Few other aspects of our national life are conducted with so little factual information on management, social performance, or broad questions of public policy. Instead, folklore and dogma too often hold sway (in the management of higher education.) It is perhaps the only industry that decries additional customers, announces its reluctance to accept them, professes its belief in smallness, and yet accedes inevitably to expansion."

—ROBERT D. CALKINS, president, Brookings Institution, at the convention of Land Grant Colleges and State Universities.

THE SCHOOL EXECUTIVE



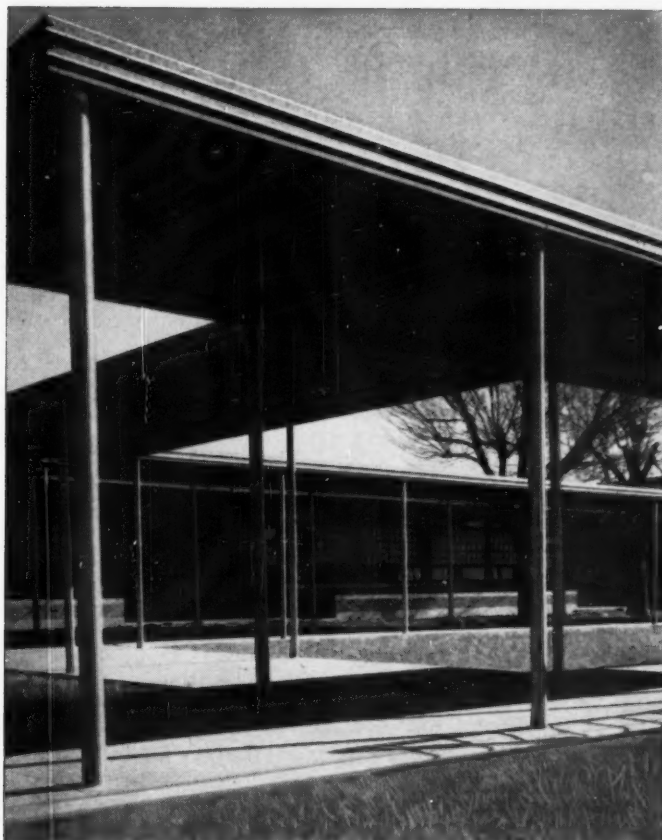
If money is no object, school planners may choose these thick, heavy concrete walkway covers. But, you have to be willing and able to spend as much as **\$12.50 per sq. ft.**



Even with a low first cost, this wood frame cover is probably the most expensive of any type walkway cover made. The life is short and maintenance is high.

Planning new school construction?

What's the best buy in walkway covers?



The trend to one-story, campus-style school design created a critical need for an economic walkway cover engineered to last as long as your buildings. Now, for the first time, architects can specify a prefabricated steel walkway cover that costs no more—and often less—than ordinary wood construction. Childers Walkway Covers of average size will usually cost less than **\$2.00 per sq. ft. installed.**

March, 1959

With the increased demand for school facilities, and growing reluctance to increase taxes, school executives are faced with the problem of keeping the quality of construction high, while holding down costs.

Childers Walkway Covers offer all the advantages of expensive, custom-designed covers, yet cost as little as ordinary wood covers.

Secret of the saving: Childers Walkway Covers are mass-produced in standard lengths and widths, so they can be sold at mass-production prices. Regular workmen can erect in minimum time. The prefabricated units are joined easily and harmoniously.

The specially engineered design of the rugged framing and deep-ribbed roof sheets gives Childers Walkway Covers extra rigidity. Framing and roof sheets are cold-formed of heavy gauge galvanized steel for maximum strength.

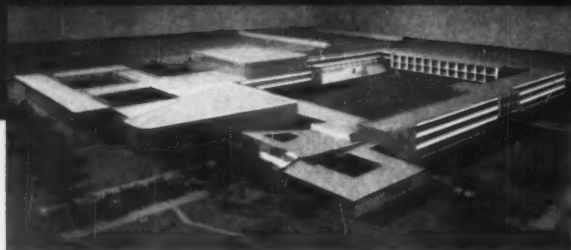
Only minimum maintenance is needed, because Childers Walkway Covers are made of factory-Bonderized Armco Paintgrip-Zincgrip steel meeting ASTM Specification A-93-55T. The galvanized coating is guaranteed 1.25 oz. per sq. ft. minimum. Finish is either natural galvanized, or baked-on alkyd enamel.

For a free folder with complete information that you and your architect will find useful in estimating the cost of Childers Walkway Covers, mail the coupon below:

Childers Manufacturing Co.
P. O. Box 7467, Dept. SE-5
Houston 8, Texas

At no cost or obligation to me, please send full information on how Childers Walkway Covers will help us hold down school construction costs.

Name _____
Title _____
Address _____
City _____ State _____



FERNDALE HIGH SCHOOL in Suburban Detroit

Above: Main court, photo taken from study hall and cafeteria area in photo below.

Architects and Engineers

JAHR, ANDERSON, MACHIDA and ASSOCIATES, Detroit, Mich.

Mechanical Contractor

PAGE PLUMBING & HEATING COMPANY, Detroit, Mich.

POWERS Temperature Control Regulates Climate for Learning in this 320,000 sq. ft., 2850 student high school

GREATER SIMPLICITY and year after year reliability of a Powers Pneumatic Control System will give Ferndale's taxpayers these money-saving benefits:

Thermal Comfort helps retain good teachers, increases their efficiency, fewer absent with colds, protects health of students, helps keep them alert. **Lower Heating Costs**—Powers accurate control prevents waste of fuel in over-heated and unoccupied rooms. Fuel savings alone soon pay back its cost.

Lower Maintenance Cost—25 to 40 years of dependable control with a minimum of repairs are often reported by Powers users. Ten miles from Ferndale in the old Central High School Building in Detroit, Powers thermostats are still in operation after more than 50 years of service.

Powers Complete Responsibility—for a correctly engineered control system, proper installation, continuous successful operation and SERVICE when required from offices in 85 cities.

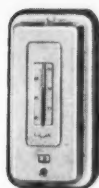
Dual purpose Cafeteria and Study Hall area





Above: Modern Library and Science laboratory.

Below: Three of the 12 booths in the Language Laboratory, one of the first of its kind in the United States. Earphones, microphones, tape recorders and phonographs play an important role in teaching foreign languages.



POWERS INDIVIDUAL ROOM CONTROL For Every School Activity Insures Utmost Comfort and Fuel Savings

225 Thermostats are used here. The forced hot-water heating system has indoor-outdoor control in zones, 124 unit ventilators in classrooms have independent day control. Larger areas are supplied by 18 different fan systems. The building is divided into 8 temperature control zones, each with a control panel for manual or automatic selection of control cycles.

Low Cost Maintenance is assured by 225 Powers PACK-LESS Control Valves used here on unit ventilators and convectors. They're labor savers. They banish packing maintenance and prevent damage from water leakage.

In Your New School—make sure taxpayers get the biggest return from their temperature control dollars. Ask your architect or engineer to include a time-proven Powers Quality System of Control.

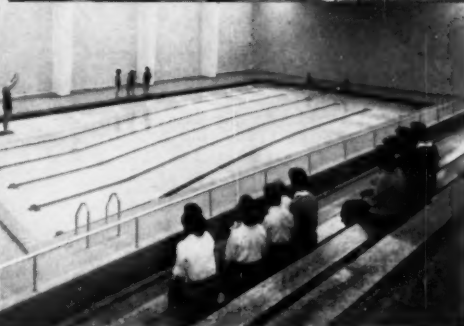


Below: Band Practice Room.

THE POWERS REGULATOR COMPANY

Skokie, Ill. • Offices in 85 Cities in U.S. and Canada

65 Years of Automatic Temperature and Humidity Control



Some of the modern SAFE SHOWERS with Powers HYDROGUARD thermostatic controls.

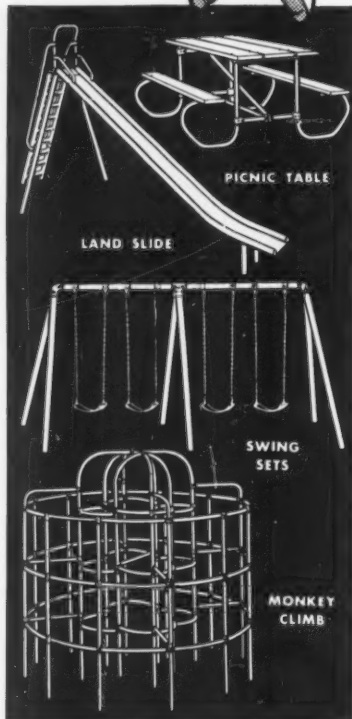
One of the two large swimming pools.

(D-7)

Play Safe with

RECREATION

Economy, safety, and durability are the mainstays of the Recreation line of playground equipment. Get the line that insures maximum strength and durability by the use of certified malleable castings and fittings... while assuring maximum economy by hot galvanizing of exposed metal parts and use of cadmium plated bolts. Get RECREATION and be sure!



PICNIC TABLES that can "take it!" Top grade Douglas Fir planking is finished with top quality green enamel.

THE LAND SLIDE will withstand hard play for years because of its heavy-duty chute, structural steel supports, guard rails and ladders.

SWING SETS feature oilless bearings, flexible rubber seat belts for safety, and safely adequate swing separation.

THE MONKEY CLIMB is designed to accommodate 25 children safely. Hot galvanized pipe has smoothed edges and will fit the smallest grip.

Write for your free copy of the Recreation catalog which shows the complete line of playground, swimming pool and basketball equipment.

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Dept. SE-39, 724 W. 8th St. • Anderson, Ind.

Progress Report—Education Act '58

WASHINGTON—Less than seven months after the National Defense Education Act was passed by Congress, money is beginning to go out to the colleges and universities, students and state departments of education which are sharing in the appropriations.

About three-fourths of the funds appropriated under the Act will be distributed as grants to state education agencies for: strengthening instruction in science, mathematics and foreign languages; testing and counseling; providing area vocational education; and improving statistical services.

Another portion will go to institutions of higher learning for: student loans; fellowships; and foreign language centers. The remainder will go to organizations and individuals for research in educational utilization of audio-visual aids.

These major steps have already been taken to implement the various programs:

- Preliminary applications for federal loans for the purchase of laboratory and other special equipment used in teaching science, mathematics or modern foreign languages were all filed by this February 15. Money to equip and remodel grade and high schools to improve the teaching of these three subjects will flow by April.

- State plans for training expert counselors are under way and may be operating this month.

- Federal allocations totaling nearly \$1 million have been made to 23 states, Hawaii and the District of Columbia for area vocational educational programs. States have to match these allocations dollar for dollar.

SE-248

DOES CLEANING WASHROOM FLOORS GET YOU DOWN?



You'll change your mind in a hurry once you try a Geerpres mopping outfit. Easy-to-use powerful interlocking gearing wrings mops as dry as you please without twisting or tearing. Best of all, no splashing on clean floors or clothing.

Geerpres buckets roll at a touch on quiet, rubber-wheeled ballbearing casters. Electroplated wringer and rugged galvanized or stainless steel buckets end rust—last for years.

Take it easy. Get a Geerpres mopping outfit today. Single and twin-tank models plus accessories. See your jobber or write for catalog.

Geerpres

WRINGER, INC.

P.O. BOX 658, MUSKEGON, MICH.

"FLOOR-KNIGHT"
Mopping Outfit
for mops to 16 oz.



From his desk, Dr. J. C. Witter, Superintendent of Schools, Caney, Kansas, is in instant two-way conversation with teachers.



Teacher saves steps; she answers calls from any point in room. Call from principal is announced by bright red privacy light. Teacher can also call principal.



Portable amplifier and loudspeakers provide P.A. facilities for the auditorium, gym and athletic field . . . including announcements to spectators.

For schools with low-budget problems

Executone provides complete communications, classroom privacy

Caney, Kansas, schools get all the many features of expensive console sound systems with simplified, low-cost Executone intercom. This inexpensive, all-purpose system saves time and energy for teachers and principal, increases administrative efficiency. Schoolwide announcements can be made from the principal's desk. School programs, recorded music, speeches, special events, emergency dismissals, every form of sound system transmission can reach all school areas, as well as individual classrooms.

You get these plus advantages with Executone:

- **Lower Cost**—Expensive console features now possible with new simplified wiring circuit.
- **Easy to Operate**—No complicated, confusing control panels.
- **Easily Installed** in existing schools. In new construction, additional savings possible on wiring.
- **Small Initial Investment**—Starting with intercom, schools can add sound system features as required.
- **Space Saving**—Principal's compact control station needs only small fraction of space required by console.

More time for teaching! Teachers like the system. It saves them steps, time and energy . . . so students benefit, too! Find out what Caney schools have learned . . . how Executone School Intercom can improve *your* school administration. Just send coupon for more information.

Executone

SCHOOL COMMUNICATION SYSTEMS

Manufacturers of School-to-Home telephone equipment for shut-ins

EXECUTONE, INC., Dept. X-13
415 Lexington Ave., New York 17, N. Y.

Without obligation please send:

- ☐ Complete details on Caney Schools' communication set-up
- ☐ Other free descriptive literature.
- ☐ Name of local representative.

Name _____

School _____

Address _____

City _____

Zone _____ State _____

In Canada—331 Bartlett Ave., Toronto

SE-250

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NITRILE THERMOPLASTIC SHEET

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**HOMEMAKING, ART and
SCIENCE, PHYSIC and
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SHOPS.**

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SPOTLIGHT

• Federal funds are being made available to Pennsylvania, Connecticut and New Mexico to develop plans for improving statistics on major education developments. No early action is seen.

• More than 800 colleges and universities have indicated they intend to participate in the new student loan program. Six Eastern colleges, however, have strongly urged repeal of a provision of the Act which requires students seeking loans to disclaim by affidavit belief in groups advocating overthrow of the government by force.

• A 12-member National Advisory Committee has been appointed to assist the Office of Education in administering the graduate fellowship program. Winners will start their studies in the fall.

• Some centers for training college teachers of little-taught languages like Chinese, Arabic, African and Indian may be in business by summer.

• The Office of Education is now prepared to consider applications for federal funds to support research projects in educational television, radio, motion pictures and related communications media.

Safety Council Belabored For "Negativistic" Attitude

SAN ANTONIO, Tex.—The National Safety Council was not "accentuating the positive" when it appealed to parents, teachers and public officials to ban amateur rocketry, an Oklahoma educator said recently.

Speaking to an open session of the American Chemical Society's 3-day Southwest Regional Meeting, L. E. Lewis, Jr., coordinator of television instruction for the Oklahoma City Schools, asserted that it was in the psychological impact of its statement that the Safety Council had erred.

"We feel we must belabor the National Safety Council for the tone of their position and for the disservice they have done to education in taking an arbitrary position of uncompromising prohibition," stated Mr. Lewis.

SE-251

a lesson in plumbing maintenance

- CONTROLS GREASE
- ELIMINATES ODORS
- REDUCES SLUDGE
- ELIMINATES STOPPAGES

- When Used in
- GREASE TRAPS
 - SEPTIC TANKS
 - TILE FIELDS
 - CESSPOOLS
 - PLUMBING
 - MUNICIPAL SEWAGE PLANTS

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MAINTENANCE!**

Nature's
First Aid to Waste Treatment

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Reg. U.S. Pat. Off.

Bionetic contains billions of beneficial bacteria. These bacteria solve your plumbing problems by attacking and devouring all organic wastes . . . both liquid and solid . . . grease, sludge, scum and slime. When introduced into your plumbing system, Bionetic's billions of bacteria come to life. Quickly and completely, they eliminate odors and stoppages. Bionetic is safe — completely harmless to humans and plumbing.

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Bionetic Division P.O. Box 19343, Houston 24, Texas



to make good rooms for learning

Arlington

modern classroom seating

Both in appearance and structure, you will find Arlington seating contributes materially to better classroom environment. Modern color finishes add warmth and friendliness to the classroom scene. Work surfaces are made in beautiful maple grained plastic, that is glare resistant and wonderfully smooth and durable. Components proportioned for day-long comfort and learning ease. Arlington seating equipment in sizes to fit every student and grade includes desks, chairs and chair-desk combinations . . . tables in complete choice of desk top designs . . . teacher's desks . . . and such related equipment as auditorium chairs and stadium seating.



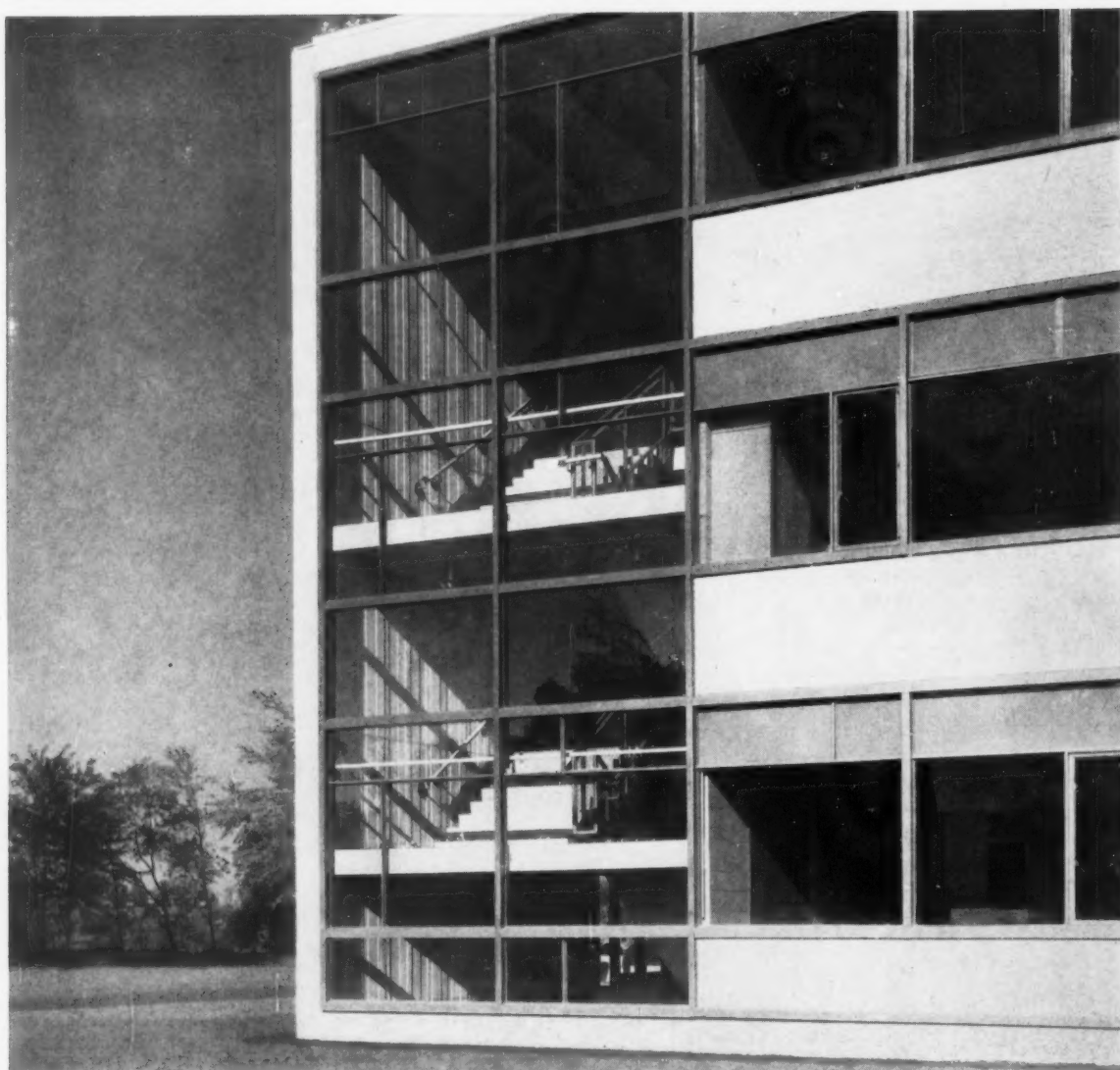
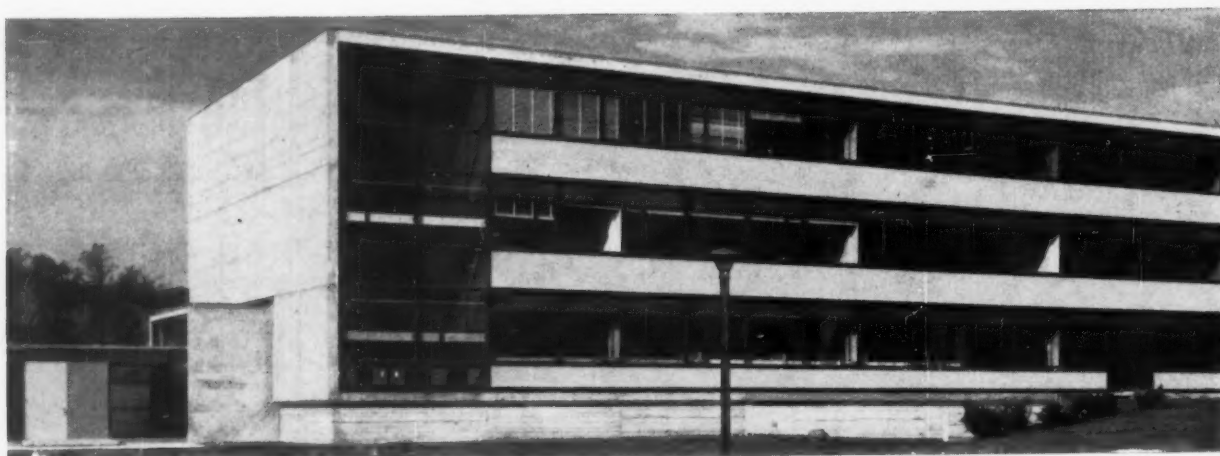
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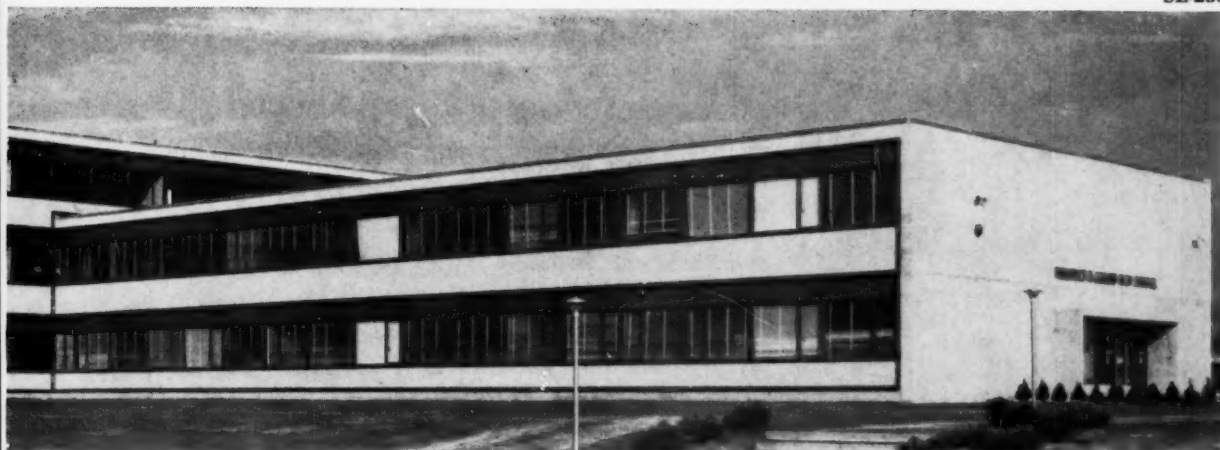
Arlington Catalog 59

ARLINGTON SEATING COMPANY • Arlington Heights • Illinois

for over 50 years—a dependable source of supply



Design your schools better with PITTSBURGH



35,000 square feet of functional glass

Here's a real attention-getter—the new Frederick U. Conard High School in West Hartford, Connecticut. 25,000 square feet of PENNVERNON Sheet Glass and 10,000 square feet of colorful SPANDRELITE Glass form the handsome window walls . . . beautifully simple in design and completely functional.

Conard High School is rich with natural daylight that streams through the large PENNVERNON Windowpanes. Students and teachers benefit from the extra light and unrestricted vision made possible by PENNVERNON's clear transparency.

Visitors at the school are impressed by the bright SPANDRELITE panels that complete the window wall. This

beautiful, non-fading glass will resist weather and corrosion for the life of the building. There are no maintenance problems with SPANDRELITE.

Every new school can reap these handsome benefits of Pittsburgh Glass—beauty of design, improved lighting, and a pleasing indoor-outdoor atmosphere.

Architect: Nichols & Butterfield, West Hartford, Connecticut

CONSULT YOUR ARCHITECT

for information about the use of these famous Pittsburgh Glasses in school construction:

Solex®	green tint, heat-absorbing and glare-reducing plate glass
Solargray®	neutral tint, heat-absorbing and glare-reducing plate glass
Herculite®	shock-resisting tempered plate glass
Twindow®	the world's finest insulating window
Polished Plate Glass	for clear, undistorted vision
Pennvernon®	window glass at its best
Spandrelite®	glass in color
Pittco®	glass-holding and decorative metal members



GLASS



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PITTSBURGH PLATE GLASS COMPANY

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BANCORK



•BULLETIN BOARDS.

BANCORK Bulletin Boards are fabricated of the finest cork obtainable. It can be furnished in full rolls 49" and 73" wide by approximately 90' long or cut to your given sizes. It may also be cut to given sizes and laminated to various backing boards.

The only maintenance required is an occasional washing to remove surface soil.

BANCORK Bulletin Board is available in twelve beautiful colors:

752 Sage Green	BC-2 Toast Tan
754 Pueblo Gray	BC-4 Field Green
756 Cork Tan	BC-6 Beach Gray
758 Coral	BC-8 Spray Green
NC-170	BC-10 Wheat Tan
Natural Tan	BC-12 Yellow Gold
	BC-18 Coral Rose

Also now available: **Bangor Cushion-Eze Tack-board**—a new foam cushioned bulletin surfacing, in three shades; **Coppertone**, **Driftwood** and **MINT**.



BANRITE Chalkboards

These boards can be furnished in Schoolastic Green, Black, Terra Cotta, Powder Blue, Nu-Mode Green, Rose Coral, Suede Black any size up to 4' x 12'. Duo-Lux 1/4" thick and Pan-Nel 1/4" and 1/2" thick, Vinyl surfaced for long wear.

FRAMED Bulletin Boards and Chalkboards

BANCORK Bulletin Boards and **BANRITE** Chalkboards can be furnished with a 1 3/8" x 3/8" Oak frame, also, 1" x 3/4" x 1/8" and 3/16" x 3/8" x 1/16" Anodized Aluminum Moulding.

Write for brochure

BANGOR CORK CO.

Pen Argyl, Pennsylvania

Bank Matches Staff Gifts To Educational Institutions

NEW YORK—To encourage staff members of the Chase Manhattan Bank to make financial contributions to educational institutions, the Bank Foundation there will match gifts made by the employees.

Any donation of from \$5 to \$1,000, made by an employee in any calendar year, will be matched. Any two-year or four-year college, university or independent secondary school, accredited by the appropriate associations and within the United States and its possessions, shall be eligible.

These institutions must have received a U. S. Treasury Department ruling that contributions are tax deductible by the donor for federal income tax purposes.

Board of Regents Reports On NYS Education Needs

ALBANY, N. Y.—"Expenditures for public education (in New York State) have nearly doubled in the past six years and are expected to double again during the next six years," according to the New York State Board of Regents.

In a document titled *The Regents Proposals for Meeting Requirements in 1959-60 for the Pursuit of Educational Excellence in New York State*, the Board warns the public that this increase, great as it will be, will merely keep up with increasing enrollments and current trends in costs.

"If quality is to be improved to the extent the times demand," it states, "even greater increases in expenditures will be necessary." The board goes on to make 19 specific proposals for improving that quality.

School of Communications Founded in Pennsylvania

PHILADELPHIA—The Annenberg Fund, Inc., and the University of Pennsylvania are joining in the establishment of a new school of communications at the university.

Intended primarily for graduate professional education, the Annen-

FERROX

Prevents Slipping and Falling

EASY TO APPLY
LOW COST • LONG LASTING



Millions of tiny, sharp, abrasive particles in Ferrox provide safe footing even when covered by grease, oil, water, or metal or wood chips—falls and accidents are prevented.

Not only ideal for shops, but used in shower stalls, dressing room areas, and around swimming pools.

Ferrox can be easily troweled into place. It permanently adheres to wood, metal and concrete and is unharmed by oils and chemicals. Just a thin coating is necessary for long, trouble-free life. Approximately 1/16" thick, and therefore does not cause trip hazard as you approach safety covering.

Ferrox can be quickly applied without disrupting schedules or classes. The cost is low—one gallon covers approximately 35 sq. ft.

The Navy uses thousands of gallons to prevent slipping on their ships.

Available in four colors—black, red, gray or green. Write today for Ferrox bulletin.

AMERICAN ABRASIVE METALS COMPANY

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THE SCHOOL EXECUTIVE

LOOK at the safeguards of a germicidal cleaner



WARDS OFF ABSENTEEISM

WESCODYNE is an extraordinary safeguard for students and teachers. It both cleans and disinfects in one operation. Destroys organisms that cause Influenza, T.B., Polio and other contagious diseases. Yet costs little or no more to use than soap and water.

WESCODYNE is the first "Tamed Iodine" Detergent-Germicide. It offers a range of germicidal effectiveness that is greater than that offered by solutions containing chlorine, cresylics, phenolics or quaternaries. It leaves no odor and is nonstaining, nonirritating and nontoxic at use dilution.

WESCODYNE has an unmatched history of scientific evaluation and success. In hospitals, it is the single germicide suitable for all cleaning and disinfecting procedures. In

schools, it is recommended for routine housekeeping wherever soap and water are ordinarily used. And of course for cafeteria, washroom and athletic areas.

WESCODYNE costs less than 2¢ a gallon at the general purpose use dilution of 75 ppm available iodine. We'd be glad to send full information. Just telephone your nearby West office. Or mail the coupon below to our Long Island City headquarters.

- ☐ Send full information on WESCODYNE.
☐ Have a Specialist phone for an appointment.

Name

Position

PROGRAMS AND SPECIALTIES
FOR PROTECTIVE SANITATION
AND PREVENTIVE MAINTENANCE



WEST DISINFECTING DIVISION

WEST CHEMICAL PRODUCTS INC.
42-16 West Street, Long Island City 1, New York
Branches in principal cities
CANADA: 5621-23 Casgrain Avenue, Montreal



Why DO MORE SCHOOLS CHOOSE

Here's the Answer

Hillyard simplified floor maintenance saves dollars. No fake economy of "cheap" maintenance products — just long-wearing savings that come from cutting labor costs. Hillyard products last longer because they are made better.

and here's the *Hillyard* 2-step treatment plan,

to preserve your floors' appearance, add years of life to the wearing surface, through good weather and bad.

1) Remove the dirt and soil that grinds away the floor with abrasive wear.

Hillyard SUPER SHINE-ALL® is the safe cleaner that passes all tests for complete dirt removal. It's chemically neutral — will not attack the finest flooring or its finish, or leave discoloring build-up. Instead, actually strengthens the finish film of protection, enhances the sheen. Because it does a more thorough job, less scrubbing is necessary and the whole rinsing operation is eliminated. SUPER SHINE-ALL saves you maintenance dollars.

2) Protect the floor with the toughest, hardest, longest-wearing — and most lustrous — wax of them all.

Hillyard SUPER HIL-BRITE®, made 100% from No. 1 prime yellow imported Carnauba wax, is outstanding among water-emulsion finishes for resistance to abrasion, moisture and stains. Forms a tough, hard film that holds dirt and water on the surface for easy removal. Buffs to a deep, rich sheen. Because this hard, smooth surface is easy to clean, and wears 3 to 4 times longer than ordinary waxes, it makes possible big savings in your maintenance budget — no frequent stripping and recoating!



Both products are UL listed "pertaining to slip resistance"

Ask, also, about specialized Hillyard finishes for other types of flooring — terrazzo, wood, concrete, gymnasium.



Hillyard FLOOR CARE than any other?



FREE

Write for Hillyard Floor Treatment Files, containing product information and detailed labor saving, step-by-step application procedures. One for each type of flooring.



The Hillyard "Maintaineer®" will be glad to help you work out a floor-saving, money-saving maintenance program. Call on him; he's a trained floor care specialist, "On Your Staff, Not Your Payroll!"



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San Jose, Calif.
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Branches and Warehouse Stocks in Principal Cities

MAIL COUPON TODAY

HILLYARD St. Joseph, Mo.

E-5

- ☐ Please send me a set of Hillyard Floor Treatment Files. No charge.
- ☐ Please have the Hillyard Maintaineer in my area call on me to discuss my floor care problems. No charge or obligation.

Name.....

School.....

Address.....

City..... State.....



How to stop rubber marks



HOW TO PREPARE MOP. Pour FLOOR DRESSING over top of mop at rate of 1 to 1½ ounces for each 4" of mop.



Next, roll up mop and store in plastic bag or other airtight container for at least 4 hours. This allows FLOOR DRESSING time to become evenly distributed throughout mop.

Do unsightly black rubber marks destroy the beauty of *your* floors?

Then you'll be delighted by the improvement when you begin using Multi-Clean FLOOR DRESSING.

A quick daily dust mopping with a mop treated with FLOOR DRESSING leaves a thin film that's highly resistant to marks by rubber or other materials.

But that's not all! Your wax or resin finish takes on new beauty. It has higher lustre, a harder surface. FLOOR DRESSING greatly improves anti-slip properties and extends wearing life of the wax.

And it *cleans* at the same time as it polishes and preserves. Since the treated mop picks up and holds free dust, there's no need for sweeping compound. You'll save hours of time and gallons of material.

FLOOR DRESSING has a pleasant aroma, creates no fire hazard, and is listed by U/L as anti-slip. It also tends to discourage development of bacteria and fungi.

For all floors. You can use FLOOR DRESSING on all type floors, for it contains nothing that can harm any floor that's properly treated. It's available in 55, 30, 15, 5 and 1-gallon containers.

FLOOR DRESSING is just one of 27 modern cleaners, sealers, and finishes developed by Multi-Clean research. For more information on this outstanding mop treatment and scientific MULTI-CLEAN METHOD for maintaining *your* floor, call your local Multi-Clean Distributor or mail coupon today. You'll be under no obligation.



MULTI-CLEAN
Method



The combination of the right Multi-Clean Equipment and Materials with the correct procedure.

MULTI-CLEAN PRODUCTS, INC., Dept.
St. Paul 16, Minnesota SE-39-39

Please send information on FLOOR DRESSING and scientific MULTI-CLEAN METHOD for maintaining following type floors: ☐ Asphalt Tile; ☐ Gym Floors; ☐ Terrazzo, Oxychloride; ☐ Concrete; ☐ Rubber Tile; ☐ Vinyl Tile; ☐ Other (specify) _____

Name _____ Title _____

Address _____

City _____ Zone _____ State _____

SPOTLIGHT

berg School of Communications will conduct teaching and research programs in radio, TV and other fields of communication.

University President Gaylord Harnwell and Walter Annenberg have said that "the existence of free and effective channels of communication among men is a basic requisite to an informed public consensus upon the important issues of society which, in turn, is essential to the viability of our democratic form of government."

The school will involve an expenditure of about \$3 million and will be open in September.

Principal Gives Boost to 3-Semester School Year

A 3-SEMESTER SCHOOL YEAR is offered as the solution to both the teacher shortage and the classroom shortage by M. E. Herriott, principal of Airport Junior High School, Los Angeles, in a recent issue of *The Clearing House*.

Dr. Herriott suggests in his article that the school year be organized on a 3-semester basis, with each semester consisting of 17 weeks or 85 days. Under this plan, says Dr. Herriott, pupils would normally attend any two of the three semesters for the traditional one year or grade of advancement.

The teacher shortage would virtually evaporate under this plan, he says, for two teachers could teach as many pupils in three semesters as three teachers now teach in a school year or two semesters.

Georgia Legislature Passes Anti-Integration Measures

ATLANTA, Ga.—The Senate and House here have passed bills preventing any Georgia city from integrating its schools.

The bills were part of a package urged by Gov. Ernest Vandiver to forestall integration threats in Georgia schools and colleges. They keep any city from levying property taxes to support an integrated school.

THE SCHOOL EXECUTIVE



Superamic Transit—Puller



Superamic Transit—Pusher

Which of these new buses

best fit your needs?

Wayne Superamic Transits — Setting the pace with the features of the future in school transportation. Extra capacity (60 to 78 passengers) means lower cost per rider mile. Ideal for both daily service and extra-curricular activities.

Wayne Coachline Buses — Bantam-size transits specially designed for efficient small-group transportation (12 to 25 passengers). Combine small-bus economy and maneuverability with big-bus safety and comfort.

Wayne Conventional Buses — Newest safety features plus greatest comfort and durability make Wayne Super Custom and Superamic buses the value leaders of the conventionals. America's favorite school bus. (20 to 72 Passenger capacity.)



Coachline Panoramic



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Super Custom Conventional



Superamic Conventional

Whichever you select, you can be sure you're getting the safest, most advanced buses ever built—more for your money in every way—because they're produced by Wayne, the world leader in bus transportation.

FOR FULL INFORMATION CONTACT YOUR WAYNE DISTRIBUTOR



Setting the future standards for school bus safety
WAYNE WORKS DIVISION
RICHMOND, INDIANA
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**national's
non-toxic
VEG-OUT
destroys
weeds**



National's non-toxic VEG-OUT is a non-selective weed killer—it will attack all vegetation. Liquid VEG-OUT is safe to use around humans or animals. Sprayed on the surface of the earth, it is carried into the soil by rain or water and absorbed by the roots of growing or dormant vegetation. The roots die and the entire plant is permanently destroyed. VEG-OUT can be applied by hand or mechanical sprayer at any season of the year. Use VEG-OUT to rid your soil of undesirable vegetation.



national
DISINFECTANT COMPANY
2417 Commerce, Dallas
906 S. Seventh, St. Louis

SPOTLIGHT

Council Prepares Document On Christians and Schools

NEW YORK—"Christians and Public Schools," a document prepared by the Committee on Religion and Public Education of the National Council of Churches, will be considered next July for possible official adoption in 1960.

The Committee is composed of 102 members appointed by 25 denominations, 12 state councils of churches and several related agencies. It is their task to recommend to related churches and church members policies which they may consider as they face problems in the field of public education.

The points of view advanced in the document are expected by the Council to be considered like those of other community groups by the public school administrative boards and officials to which the document is presented.

State Court Dismisses Suit Barring Christmas Display

WHITE PLAINS, N. Y.—A suit enjoining the Ossining school system from allowing a Nativity scene on the high school grounds was dismissed recently.

The plaintiffs, 28 Jews and gentiles from Ossining, contended that the symbol of one religion should not be placed on public property belonging to people of all faiths.

But State Supreme Court Justice Elbert T. Gallagher disagreed with them, saying that the accommodation of religious groups is not unconstitutional.

"If such accommodation violates the doctrine of absolute separation between church and state," he said, "then it is time for that doctrine to be discarded once and for all. Absolute separation is not and never has been required by the Constitution."

An appeal will be filed against the ruling. The American Jewish Congress will seek to appear as a friend of the court, supporting the appeal.

SE-261

Save Money . . .

STRETCH TEXTBOOK BUDGETS *with a planned approach to . . .* TEXTBOOK MAINTENANCE!

In these days of rising costs and restricted budgets, your textbook investment should be protected. Thousands of schools the country over are saving money—spending not \$3 for new books, not \$1 to \$1.50 for rebinding, but 5c to 10c per damaged book for complete repair and reconditioning by pupils.

Send for free booklet "A Planned Approach to Textbook Maintenance". Describes the DELKOTE Book Maintenance System, tells why planned maintenance is important, how it works, how to set it up to get the most from each dollar invested.

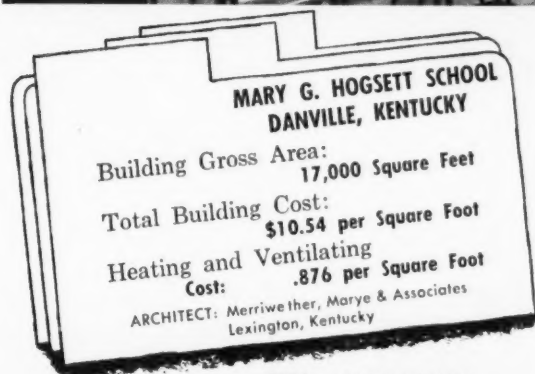
Delkote book maintenance products and assistance, in setting up operating programs, are available nationwide. No salesman will call. Simply write . . .

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EDUCATIONAL AIDS

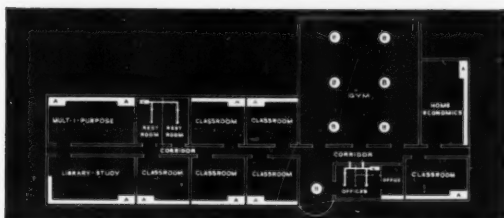
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Originators of . . . BOOK-SAVER, BOOKOTE, BOOKLEEN, DEL-FIX, TAK.

Norman Classroom-Packaged System HEATS AND VENTILATES with TRIPLE Economy



FITS ANY PLAN



Versatile Norman Schoolroom Heating and Ventilating Systems answer the needs of classrooms large or small. 85,000 or 100,000 BTU/hr inputs are available. Util-i-Duct Bookshelf Sections add work surface and storage space; then Wall-i-Duct Sections save room space.

Norman®
PRODUCTS COMPANY



March, 1959

ECONOMY OF INSTALLATION

Pre-wired, partially assembled Norman Heating and Ventilating Systems are quickly installed room by room. In new schools, like the Mary G. Hogsett school, Norman Systems eliminate expensive boiler rooms, chimneys and tunnels. The \$0.876 figure is typical of the low installation costs being realized across the nation. Norman economy grows with the school . . . individual classroom systems are added as required without costly revamping of central system.

ECONOMY OF OPERATION

Norman Schoolroom Heating and Ventilating System:

- Maintains uniform temperature without wasting fuel
- Supplies heat only when needed . . . ventilates automatically
- Each classroom's comfort needs are answered accurately, independently of other rooms.

ECONOMY OF MAINTENANCE

Long trouble-free service is assured by sturdy construction, finest materials and latest A.G.A. approved controls — standard to the industry.

NORMAN PRODUCTS CO.

1160 Chesapeake Ave., Columbus 12, Ohio

We want to learn more about Norman Products for School Comfort. Please send complete information to:

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COMPANY NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

See Sweet's Arch. File 30h/No. American Sch. and Univ. Annual C-1/No

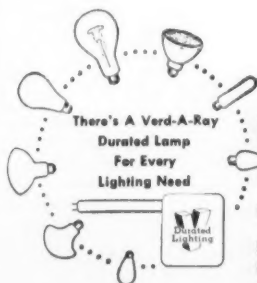




SEEING MADE EASIER WITH

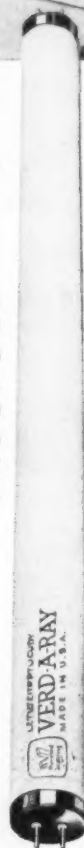
C-E-Z MERCURY FLUORESCENT LAMPS

Only soft, color-corrected light is emitted by non-glare C-E-Z Mercury school lamps. Everything the eyes see is made sharp and clear. More usable light is released. Eye fatigue is reduced. You can actually stimulate the desire to learn, safeguard eyesight of student and teacher alike and reduce lighting costs. Verd-A-Ray C-E-Z lamps bring these benefits to schools, offices and institutions—wherever good lighting is important. C-E-Z fluorescent lamps carry an 18 or 24 month free replacement guarantee.



VERD-A-RAY
CORPORATION
615 Front Street • Toledo 5, Ohio

Direct factory sales representatives throughout the United States. In Canada it's Verd-A-Ray Industries, 1285 Hodge Street, Montreal 9.



New classroom wing, Briggs High School, Santa Paula, California, has scientifically color-corrected C-E-Z lamps. They were specified by Superintendent Seward White who "... wanted the finest lighting with a minimum of replacement expense and bother." Lamp fixtures are Verd-A-Ray "Instruction Series" for maximum brightness and reading efficiency as prescribed by The American Standard Practice for School Lighting.

- ELIMINATE EYE STRAIN
- IMPROVE READING ABILITY
- CUT LIGHTING MAINTENANCE COSTS

SEND FOR THESE HELPFUL FACTS TODAY . . .

A note on your letter-head will bring a fully illustrated brochure that tells all about lighting. Light up your classrooms and labs with C-E-Z light... intense, natural light without glare. Good lighting is available locally through your Verd-A-Ray Lighting Consultant.

Available in all standard wattages and sizes.

GYMNASIUM LAMPS
(2500 hours)
Use wherever bright light is needed. In 300, 500, 1000 and 1500 watts.

INDIRECT LIGHTING
(2500 hours)
For classroom or hallway use. From 100 thru 1000 watts.

CORRIDOR LAMPS
(5000 hours)
For all hard-to-reach sockets. From 10 thru 100 watts.



WHEN YOU USE ALL FOUR DITTO® COORDINATED TEACHING AIDS!
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Pupils concentrate harder when they have bright, *sharp* copies to read. There are no smudges or faded words to distract them. Their minds are more receptive, better able to grasp and retain what they read.

This is why it's important that you use *all four* DITTO Coordinated Teaching Aids: duplicators, supplies, papers, workbooks. Each is physically and chemically coordinated to work with each other. Result: bright, clean copies; savings in time and work for you (no re-runs or re-do's); better pupil response.

Write for free catalog of the 58 DITTO Workbooks; a demonstration of the DITTO 5-colors-at-once duplicating process and samples of the new, clean DITTO *Black Hi-Gloss Masterset*. Just mail the coupon.

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School _____

Address _____

City _____

County _____

State _____

How a Huntington Maintenance Program can help

PROTECT HEALTH



The Man Behind the Drum can show you a plan to help keep floors clean and sanitary.



With more and more children in school, it is vitally important to keep floors clean and as germ-free as possible.

Huntington Laboratories has the specialized, easy-to-use products you need. The Huntington representative, a cleaning specialist, can suggest the proper cleaning program to fit your school. He will help you get it started and also keep the program running smoothly. His services cost you nothing; yet he can save you money, as well as many of your worries about the care of your building. Contact us immediately for free information.

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HUNTINGTON

SPOTLIGHT

University Issues Booklet Listing Language Films

URBANA-CHAMPAIGN, Ill.—A new 39-page booklet listing 316 films on "Language Arts and Foreign Languages" has been issued by the University of Illinois Audio-Visual Aids Service.

The films, cited for use in English and language classes, are from six to 44 minutes long, in black and white or color, silent or sound. Included are plays, debates, drills and documentaries. Many are condensations or excerpts from Hollywood productions based on major works of literature.

There are 18 categories, from language development to speech techniques, in four languages. Copies are available upon request. Schools may obtain films and tapes from the University for nominal rental and postage fees.

Colleges, Public Schools Increase Russian Courses

IT MAY HAVE BEEN SPUTNIK. But the fact remains that the study of Russian is spreading.

Though a report issued recently by the State department in Washington stated that a mere 8,000 Americans were studying the language, courses are now being offered by a number of colleges, universities, and school systems from Boston to San Francisco, and by educational tv stations all over the country.

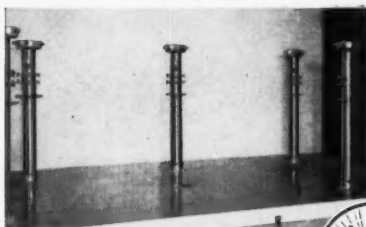
Many colleges and universities are offering the courses over tv. Among these are: Harvard University; the universities of Oklahoma, Pittsburgh and Seattle; St. Johns University; and Western Reserve University.

Among the educational tv stations offering courses in Russian are: WHYY-TV, Philadelphia; KETA-TV, Oklahoma City; WQED, Pittsburgh; WGBH, Boston; WTVS, Detroit; KUED, Salt Lake City; WUNC, Chapel Hill; commercial stations in Roanoke, Va. and Schenectady, N. Y.; and WPIX, New York.

A survey conducted just last win-

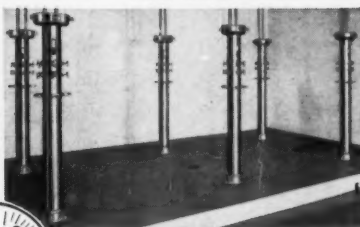
THE SCHOOL EXECUTIVE

FOR GIRLS



At Harrington Senior High Ardmore, Pa. Bradley Multi-Person Column Showers above are in girls' shower room.

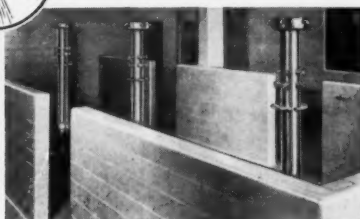
FOR BOYS



At Harrington also the boys' shower room is equipped with Bradley Column Showers.



The Welsh Valley Jr. High Harbeth, Pa. has 2, 5-person Bradley Column Showers installed within a 4 ft. tile wall enclosure.



For the boys' shower room at Welsh Valley Jr. High, 3 Bradley Columns provide for 15 shower baths simultaneously.



HAS YOUR SCHOOL MODERN SHOWERS LIKE THESE? EACH COLUMN SERVES FIVE

SCHOOLS AND COLLEGES HAVE TURNED TO— BRADLEY MULTI-PERSON SHOWERS

When you get five shower baths in one unit—you cut first costs, installation and maintenance costs. They come to you almost completely assembled. One set of piping connections serves each Multi-Person Bradley Column to reduce such connections by 80%.

Yet Bradleys provide individual control of both temperature and volume of water supply, and are available in three heights: 6', 5'6", and 5', and in stainless steel and heavy steel finished in high temperature baked enamel.

Now is the Time to Install

Hundreds of recent installations include: Hopkins, Minn. Junior High; Spokane, Wash. John Shaw Junior High; Clardy Intermediate School, El Paso, Texas; Quincy, Ill. Senior H.S.; Enid, Okla. Jr. H.S.; Spencer-

port, N.Y. Elem. School; Surratville, Md. Jr. H.S.; Collegiate Swimming Pool, Toronto, Can.; Athens, Ga. High & Industrial School; Thorold, Ont. H.S.; Pennsville, N.J. Lower Penns Neck School; Briscoe, Ont. District H.S.; Dearborn, Mich., Salina School; Honesdale, Pa. Jr.-Sr. H.S.; LaMars, Ia. H.S.; Welsh Valley Jr. H.S., Harbeth, Pa.; Harrington Sr. H.S., Ardmore, Pa.; Lafayette, La. Senior H.S.; Macon, Ga. Boyd H.S.; Palmyra, Ill. School; Gering, Neb. Jr. H.S.; Kenosha, Wis. Lincoln School; Edgewood, Ky. St. Pius School; Reading, Ohio, St. Peter & Paul School.

If new buildings or modernizations are being considered, now is the time to specify economical Bradley Multi-Person Showers. As a first step write for free Catalog 5601 which gives full details.



As shown here, stall-separating partitions with curtains provide greater privacy where this is desired.

BRADLEY WASHFOUNTAIN CO.
2233 W. Michigan St.
Milwaukee 1, Wis.

Write
now for
Catalog
5601

BRADLEY
multi-person showers
Distributed Through Plumbing Wholesalers

Architect, Harrington Senior High, Vincent P. Kling, Philadelphia; for the Welsh Valley School, Harbison, Hough, Livingston and Larson, Philadelphia; Mechanical Engineers; Moody & Hutchison.





*"Chevies get our kids
to school on time—
year after year!"*

Down in Georgia's Lumpkin County, thirteen Chevrolets carry their eager young passengers over dirt roads chopped out of the foothills of the Blue Ridge Mountains. This is rugged country, and it takes a Chevrolet school bus chassis to stand up to it—you can take G. Price Bowen's word for that.

Mr. Bowen, who's Superintendent of Schools in Lumpkin County, generally keeps his Chevies on these rugged routes for about seven years. "One thing we're real happy about—we've never had any

transmission trouble with our Chevies," he says. "And just about any school administrator would be pleased with the way Chevy saves on gas and oil and maintenance."

You'll hear that kind of praise for Chevrolet school bus chassis wherever you go. For whatever the route dishes out, Chevies handle it and come back for more. Your Chevrolet dealer has facts waiting that can prove it to you. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

Chevrolet School Bus Chassis

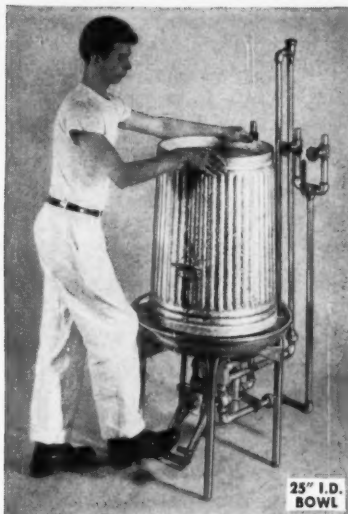
NO ROUTE'S TOO RUGGED



CLEAN and STERILIZE in minutes--- not hours!



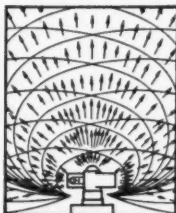
- IT WASHES ● IT RINSES
- IT STERILIZES ● IT DEODORIZES
- IT PRE-HEATS ● IT PRE-COOLS



"Its Pedal Operation" is as simple as stepping on the gas pedal of your car

Saves Work — Saves Money

- - wherever Refuse Cans — Mixing Kettles — Stock Pots — Milk Cans — Insulated Carriers or any Large Containers need cleaning and sterilizing — It does the job Faster, more thoroughly and with the greatest emphasis on Sanitation — Pays for itself quickly. It permits the use of Hot Water, Cold Water and Steam — in any combination or sequence — Operates with either High or Low boiler pressures — Easily Installed with standard fittings.



EXCLUSIVE
Patented 3 Directional, Pressure Propelled, Cyclonic Jet Spray Nozzle Scours And Sanitizes Every Minute Area In A Matter Of Minutes—It Is Truly Revolutionary!

Write for FREE Literature Kit SE-22

Vacuum Can Co.
19'S. HOYNE AVE CHICAGO 12, ILL.

March, 1959

SPOTLIGHT

ter revealed that only eight public and eight private high schools had classes in the Russian language. Now, public schools in Seattle, Jersey City, Oklahoma City, Pittsburgh, Albuquerque, N. M. and Schenectady offer regular courses in Russian.

Residents Praise Schools In University City Poll

UNIVERSITY CITY, Mo.—A survey of the attitudes and opinions of University City residents toward their public schools reveals that four out of five of them have a high opinion of their school system, its teachers and its physical facilities.

Members of 1,000 of the approximately 16,000 families in the school district were interviewed by representatives of Edward G. Doody and Company, opinion research firm.

More than 30 questions were asked on such subjects as school finances, courses being taught in elementary and secondary schools, the quality of teaching and related services. Of the 1,000 persons questioned, 428 have children in the public schools.

Obedient Harvard Students Lack Judgment in Reading

CAMBRIDGE, Mass.—Students must abandon the practice of approaching a job with "obedient purposelessness" if they wish to develop judgment in reading, says William G. Perry, head of the Bureau of Study Counsel at Harvard University.

According to Mr. Perry, 99 per cent of the freshmen who entered Harvard seemed to regard the idea of looking at the end of the chapter first as a sort of cheating. He drew this conclusion from results of a test administered to the students.

The test was a 30-page chapter from a history book, tracing the development of English Government over a period of 200 years. The chapter was flagged in the margin by brief descriptions of important matter in each paragraph and ended with a paragraph titled "Summary."

"I don't believe it"



"It's a fact — this machine counts coins at the rate of 2,400 a minute!"

"Why, that's 40 a second, hmmm. You say it wraps them, too?"

"Yup, with 100% accuracy."

"You say it will save 90% of the time we spend doing the job by hand?"

"Yup, probably more."

"You say schools, everywhere, are using these Klopp machines to count lunch program money?"

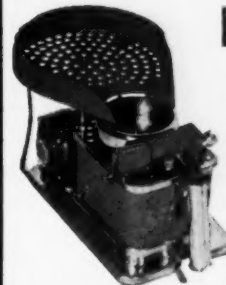
"Book store and activities collections, too!"

"What will the people who are now counting the coins do with the time they save?"

"If they're teachers they'll get their classes started on time. If they're clerical workers they'll get at jobs you've been wanting done a long time. These machines may indefinitely postpone the adding of another office worker."

"Incredible, I still don't believe it!"

"Is that a celluloid collar you're wearing?"



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bring new security,
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to Santa Clara Union High School
Santa Clara, California

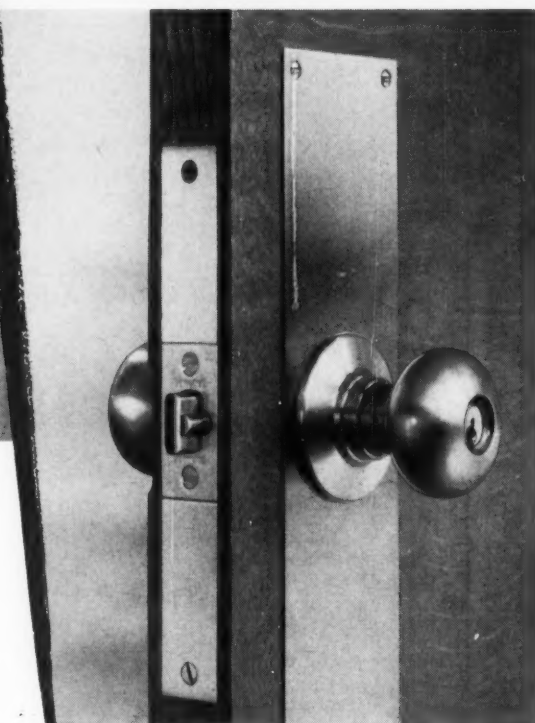


The antiquated mortise locks in Santa Clara Union High School created a problem. Upkeep was high. Security was low. Multitudes of keys were spread about, yet there was no integrated masterkeying system. The solution? Relocking with Schlage.

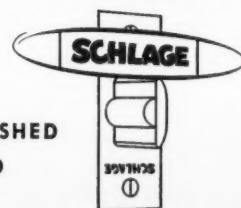
Now the problems are solved. All is modern and efficient. Further, two new schools and the district's elementary schools are to be tied into the masterkey system. Now, one great grand masterkey will cover the entire school district.

Schlage locks can be installed by maintenance personnel. On this project, two men relocked with Schlage at an average of one every 20 minutes.

Consider Schlage for your new schools or to replace antiquated existing locks. For information write P. O. Box 3324, San Francisco 19. Schlage Lock Company . . . San Francisco . . . New York . . . Vancouver, B.C.



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LOCK BRAND



THE SCHOOL EXECUTIVE

SPOTLIGHT

Sex, Narcotics Discussed In Youth Program Series

SAN DIEGO, Calif.—A series of five programs on Problems of Youth is being held here under the sponsorship of the San Diego Coordinating Council's Juvenile Protection Committee.

Discussion topics for the meetings are: "Sex and Modern Youth"; "Narcotics Threat to Youth"; "Teenage Driving"; "Problem Parents or Problem Children"; and "Youth and Alcohol." Programs consist of opening presentations by panelists, followed by audience questioning. Teenagers are invited.

Members of the panel include: a psychiatrist; a psychologist and psychoanalyst; a college student; a member of San Diego's school guidance department; the director of Health Education in San Diego; and a Commander from the 11th Naval District.

Theobald Gives Follow-Up On NY's Suspended Pupils

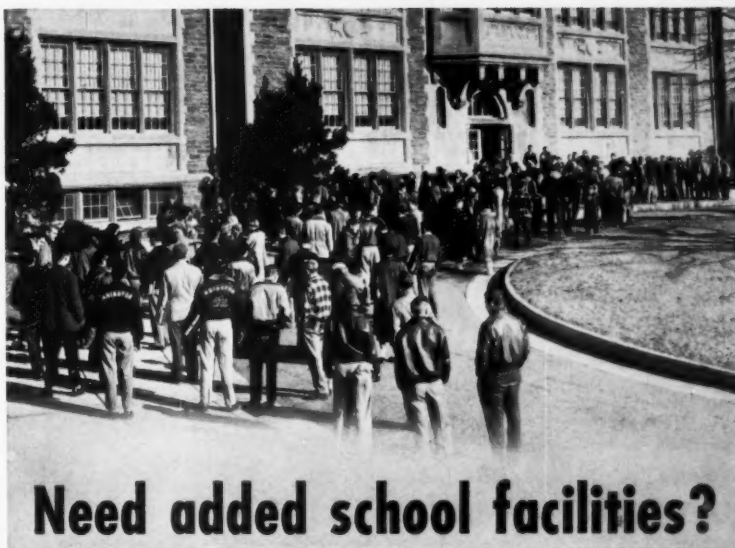
NEW YORK — Superintendent of Schools John J. Theobald recently reported that 850 of the 1,323 pupils suspended last year are still under direct supervision of the New York Board of Education.

He said that 377 of them are in '600' schools (for problem children) and 469 are back in regular schools; the rest have moved away, gone into institutions or are over the compulsory age. Of the 469 back in regular classes, 322 are doing well, "thanks in part to the increased parental interest."

Associate Superintendent William A. Hamm said that welfare agencies and "the shock of suspension" have also served to aid the students. All of them are receiving intense counseling and guidance aid, he said.

The 137 who are not doing well are either on probation, receiving psychiatric help or are getting aid from private agencies. Most of those in the '600' schools are doing well.

March, 1959



Need added school facilities? New R-W catalogs show how to ...

**"accommodate more pupils
—provide greater facilities
without proportionately
increasing costs"**



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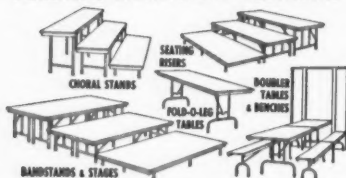
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SPOTLIGHT

EDUCATORS IN THE HEADLINES

• **Herbert Andrew Smith**, professor of education at the University of Kansas, was appointed chief of the science, mathematics and foreign language section of the Office of Education. Dr. Smith will assist in administering the National Defense Education Act.

• **William Riley Parker**, Distinguished Service Professor of English at Indiana University, was named to head the language development program under the National Defense Education Act. The Program contemplates the establishment of language and area centers and teacher training institutes as well as a research program.

• Four new members were appointed to the Educational Policies Commission. Novice G. Fawcett, president

of Ohio State University, Columbus; **George D. Hann**, superintendent of schools in Ardmore, Okla.; **A. John Holden**, state commissioner of education in Montpelier, Vt.; and **Elsie Parnell**, classroom teacher in Mineral Wells, Tex. will serve four-year terms starting next July. The EPC makes policy recommendations on the conduct of U. S. education.

• **Claude M. Hirst**, for six years chief of the property section in the school assistance division of the Office of Education, and former State Commissioner of Education for Arkansas, retired after 50 years in educational work. Mr. Hirst has been a career employee of the Office of Education since 1944, and a federal employee since 1936, when he was named general superintendent for Alaska.

SE-272

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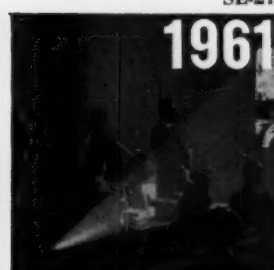
1958



1959



1960



1961



1962



1963



1964



1965



1966



1967



1968



1969



1970



1971



1972



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SE-3-59

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SPOTLIGHT**Stevenson, Conant, Carey
Address NSBA Convention**

by Edgar L. Morphet

SAN FRANCISCO, Calif.—For four days beginning Saturday evening, January 24, 5,000 school board members from all parts of the nation listened to discussions on and discussed various aspects of their convention theme "Improving Education—a Free People's Responsibility."

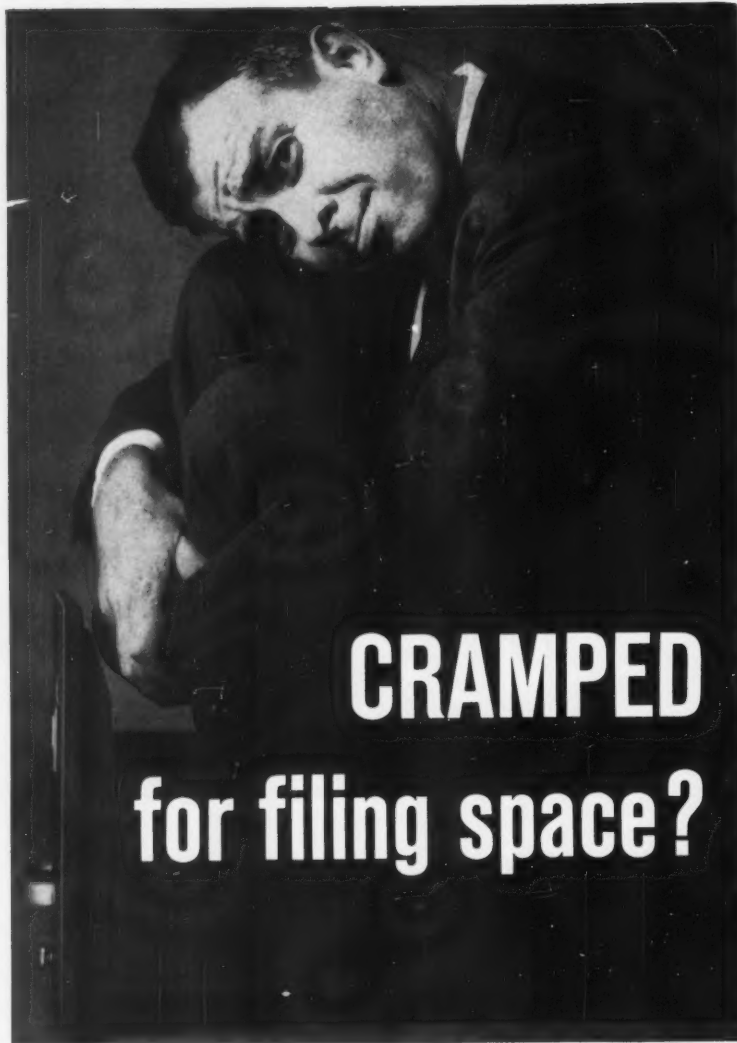
The occasion was the 19th annual convention of the National School Boards Association; the program was high level and remarkably professional for lay representatives of citizens of the nation who are concerned with education.

Important speakers included: Adlai E. Stevenson; John E. Hull, president of the Manufacturing Chemists' Association; James B. Carey, vice president of the AFL-CIO; Lawrence G. Derthick, U. S. Commissioner of Education; William G. Carr, executive secretary of the NEA; and James B. Conant, former president of Harvard University.

There were panels for board members from large cities, small cities, suburban areas, small districts, state boards of education, county and intermediate districts and others, as well as clinics on legal provisions, buildings and other problems.

Under the able leadership of President Carl Munck of Oakland, Calif., the convention provided a challenge and inspiration not only to those who attended, but for people throughout the country. Robert E. Willis of the Manatee County Board of Education, Bradenton, Fla., was selected as president and leader for the coming year.

In a realistic and forthright statement, Adlai Stevenson pointed out that "We the people, we the parents, and we the community are most to blame for the failures of our education. If in their homes and in their environment outside the school the children are indulged, how can the schools be expected to turn out a better product?"



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The "XYZ" of dependable acoustical suspension systems. Type "X" Regular—to be used when furring channels serve as the supporting structural members for the suspension system. Type "Y" Surface Applied—to be used when no suspension is required. Type "Z" combines Types "X" and "Y" to meet special conditions.

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• Simple engineering principles can make a world of difference in your wood floor jobs on concrete slabs, chalkboard and tackboard installations or acoustical tile suspension. This "special ingredient" in which everything locks together—LOXIT—is the simple engineering principle in the three BIG Loxit Systems. The Loxit Systems simplify design and construction problems, meet unusual conditions, assure permanent beauty and years of trouble free service.

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March, 1959

117



NEW WAY TO Prevent Faucet Leaks!

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34 years of research uncovers new solution

★ Now, NEW (Patented) 'Sexauer' SELF-LOCK Monel screws, with an imbedded expanding NYLON PLUG, lock at the required depth AUTOMATICALLY, hold washers FIRMLY! Made of rustproof, non-corroding Monel, heads don't twist off, screw slots don't distort. They are easily removed when necessary, can be re-used repeatedly.

★ Used with NEW 'Sexauer' EASY-TITE faucet washers, they make a combination that outlasts past faucet repairs "6-to-1"! EASY-TITES are made of super-tough, pliable du Pont compound (neither rubber nor fibre) and reinforced, like a tire, with a vulcanized layer of Fibreglas. They resist distortion and splitting from shut-off grind and squeeze.

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Faucet leaks are costly! As authenticated by Hackensack, N. J. Water Co. and American Gas Association, stopping just ONE PIN-HOLE SIZE (1/32") LEAK can reduce water waste 8,000 gal. quarterly. If a HOT WATER FAUCET LEAK, water and fuel savings JUMP to over \$7.58 QUARTERLY—plus additional savings on MATERIALS, LABOR and costly FIXTURE REPLACEMENTS!

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SPOTLIGHT

In presenting his formal report on the two-year study, Dr. Conant indicated that he had discovered many good things about the American comprehensive high school, but that he had also noted serious weaknesses in many schools.

Emphasizing the need for a talent inventory in every school, for larger high schools in many areas, and for a program that would challenge every student, he pointed out that "there may be more frill courses in colleges than in high schools," in spite of publicity that many high schools concentrate on "soft" courses.

The need for more state aid, better district organization, more attention to upgrading of teachers and teaching, higher salaries in many communities, less sensational criticism and more constructive effort to improve schools, were among the problems discussed in both general and small group sessions.

3-Year Research Project Approved by U. S. Office

WASHINGTON—A 3-year research project, dealing with the relationships between achievement in high school and college and later occupational achievement, has been approved by the U. S. Office of Education.

Allison Davis, professor of education, and Robert D. Hess, assistant professor of human development, will conduct the research at the University of Chicago.

The study is part of the Cooperative Research Program which is presently supporting projects dealing with education of the mentally retarded, identification and development of unusual talent, education aspects of juvenile delinquency and staffing of schools and colleges.

Projects are chosen from among proposals submitted by colleges, universities and State departments of education.

SE-277



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Here, PELLA WOOD FOLDING DOORS eliminate the congestion and confusion of "hall-type" wardrobes. Open space at bottom permits circulation of air when the doors are closed. Sturdy construction stands up under hard usage. Use also as space dividers. Available in 6 fine wood veneers: BIRCH • WHITE ASH • OAK • PINE • AMERICAN WALNUT • PHILIPPINE MAHOGANY.

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At Valley Oaks Elementary School, Spring Branch Independent School District, Houston, Texas—selected by A.A.S.A. for showing at its exhibit of outstanding school designs—Mrs. Lois Land, Director of Special Services, says:



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That's why we use Kodak Pageant Projectors."**

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LOW-LEVEL type for
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Halsey Taylor
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Ask any architect, contractor, school administrator . . . they'll all agree that Halsey Taylor is the logical choice. And not without reason, for Halsey Taylor offers the greatest advantages, since it is built by a house devoting its entire facilities and resources to the manufacturing of the finest in drinking-water equipment. Write for latest catalog.

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1A

SPOTLIGHT

NASSP Convention Hears Proposal for Flexibility

PHILADELPHIA—The use of flexible classes ranging from 10 or 15 to 100 or more students was one of the recommendations presented to the 43rd annual convention of the National Association of Secondary School Principals, a department of the NEA.

The proposal was made by the Association's Commission on Experimental Study of Staff Utilization in the Secondary Schools. This flexible organization of instruction, according to J. Lloyd Trump, director of the Commission, will "make better use of particularly competent teachers and also provide students with opportunities for individual and smaller-group study."

Talking to more than 5,000 educators, Lawrence G. Derthick, U. S. Commissioner of Education, discussed ways in which the National Defense Education Act of 1958 will affect education. Dr. Derthick summed up the position of the U. S. Office of Education with the motto, "Leadership without domination; assistance without interference."

Monroe E. Spaght, executive vice president of Shell Oil Company, said that American education has done a better job than many critics give it credit for. Pledging industry support to education, Mr. Spaght said, "No function is more important than the teacher's, for the high school is the birthplace of America's leaders."

Among other topics discussed by the educators were: the "team-teaching" concept; the advantages of smaller than usual classes; the teaching of modern foreign languages; and advanced methods of audio-visual instruction.

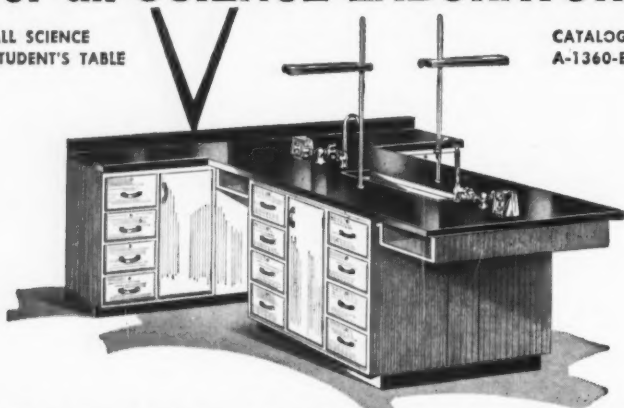
Other major speakers at the convention included: Erwin D. Canham, editor of the *Christian Science Monitor*; William C. Kvaraceus, director of the Juvenile Delinquency Council of the NEA; and George Z. F. Bereday, associate professor at Teachers College.

SE-280

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Guidance Project Extended To 16 New York Schools

NEW YORK—An experimental project that has shown success in raising the achievement level of pupils living in low-income areas to full capacity will be extended to 16 New York City schools in three areas.

The project functions through a variety of techniques, including group and individual tests, and teacher and counselor observations and ratings. It has been under way at one junior high and one high school for the past six years.

Announcement of the extension of the program was made at a news conference. The program was described as "the most significant breakthrough in any city toward equality in education" and as a way "to break through the vicious cycle of low income, low achievement, low income."

Technical Education Plays Big Role in East Germany

BERLIN—Technical education will play an increasing role in East German schools, according to a 35-point education program adopted recently by the East German Socialist Unity party's Central Committee.

Children will learn to use tools and machines at an early stage and later will do one day's practical labor a week in factories or on farms.

Russian will again become compulsory as the first foreign language. English or French may be studied as a second foreign language. Russian was the compulsory first language in secondary schools in East Germany until November, 1956.

Latin American Communists Try to Influence Teachers

SANTIAGO, Chili—Communists in Latin America are making a big effort to get teachers and schools on their side, according to W. W. Eshelman, vice president of the NEA.

Dr. Eshelman, in an interview following a month-long tour of Latin America, stressed the importance of encouraging Latin Americans to remain on the side of democracy.

"Ignorance and poverty in some of these countries provide a fertile soil for communism," he said, "yet teachers everywhere want to line up with the free world instead of with the Communists."

Cairo Ministry of Education Closes 3 Catholic Schools

CAIRO—The Ministry of Education here has closed three Roman Catholic schools, charging that they have a

curriculum which does not truly reflect Arab trends in history.

An Egyptian Catholic who has read the textbooks used at one of the schools said he thinks the history books are probably the principal target. The books still list Morocco and Tunisia as French possessions.

Msgr. Silvio Oddi, the papal internuncio who has been protector of the schools since 1956, says the school authorities received no warning of Cairo's action.

SE-287

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DURABLE

School-quip furniture is specifically suited to meet the seating requirements in the classrooms of today. Each chair and desk in this complete line is correctly styled and built to last. They fit into your budget and can be depended upon in your plans for future expansions.

Administrators and architects planning for the future with current economy in mind will specify School-quip furniture. For complete information, see your local School-quip distributor or write to us today.

LIFTING LID DESK MODEL 905

Plastic desk space, friction hinged, 18" x 24" top, 10 hrs. from 21" thru 30".



TABLET ARM CHAIR, MODEL 901

Large plastic top work space 11 3/4" x 24".

Shipped with book shelf. Seat heights, 17" or 18".



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Contour shaped for correct posture, 8 seat heights from 11" thru 18".



The exclusive School-quip leg design provides extra stability, improved balance and positive wall protection. In addition, students enjoy correct, comfortable posture support.

STUDY DESK MODEL 904

18" x 24" plastic top, 10 heights from 21" thru 30".



OPEN FRONT DESK, MODEL 903

18" x 24" roomy top, 10 heights from 21" thru 30".



SCHOOL-QUIP DIVISION

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SPOTLIGHT

Statistically Speaking

- In 1958-59, an estimated 1,395,940 teachers, principals, supervisors and other instructional workers are being employed in public elementary and secondary schools. This is an increase of 50 percent over 1948-49.
- About 4,248,000 babies were born in 1958, a decline of 53,000, or one percent, from the record high set in 1957.
- Nearly 400,000 children under 12 have to care for themselves while their mothers work.
- There were over a million more students in the schools at the beginning of this school year than at the same time last year.
- Between 1957 and 1968, New York City public school enrollments will increase by no more than seven percent, while upstate enrollments will increase by about 55 percent.

CONFERENCE CALENDAR

MARCH

- 1-4, **Assn. for Higher Education, NEA.** At Chicago. Ex. Sec: G. Kerry Smith.
- 1-5, **Assn. for Supervision & Curriculum Development, NEA.** At Cincinnati, Ohio. Ex. Sec: Rodney Tillman, 1201 16 St. NW, Washington 6, D. C. Theme: Action on Curriculum Issues.
- 18-22, **Natl. Assn. of Women Deans & Counselors, NEA.** At Cleveland.
- 23-26, **American Personnel & Guidance Assn.** At Cleveland. Ex. Sec: Arthur A. Hitchcock, 1534 "O" St. NW, Washington 5, D. C. Theme: Community Planning for Human Development.
- 29-Apr. 2, **American Assn. for Health, Physical Education & Recreation, NEA.** At Portland, Ore. Ex. Sec: Carl A. Troeste, Jr. Theme: Fitness in the Space Age.
- 29-Apr. 3, **Assn. for Childhood Education International.** At St. Louis. Ex. Sec: Frances Hamilton, 1200 15th St. NW, Washington 5, D. C. Theme: Fundamentals for Today's Children.
- 31-April 3, **National Catholic Educational Assn.** At Atlantic City, N. J. For information write to National Catholic Education Assn., 1785 Mas-

sachusetts Ave. NW, Washington 6, D. C.

- 31-Apr. 4, **National Science Teachers Assn., NEA.** At Atlantic City. Ex. Sec: Robert H. Carleton, NSTA. Theme: Science Education for America.

APRIL

- 1-4, **Natl. Council for Teachers of Mathematics, NEA.** At Dallas. Ex. Sec: M. H. Ahrendt.
- 7-11, **Council for Exceptional Children, NEA.** At Atlantic City. Ex. Sec: Harley Z. Wooden.
- 13-16, **Dept. of Audio-Visual Instruction, NEA.** At Seattle. Ex. Sec: Ann L. Hyer.

MAY

- 1-2, **International Reading Assn.** At Toronto, Can. Ex. Sec: James M. McCallister, 5835 Kimbark Ave., Chicago 37, Ill. Theme: Changing Society.
- 7-10, **North Central Div., Music Educators Natl. Conference, NEA.** At Chicago.
- 17-20, **Natl. Congress of Parents & Teachers.** At Denver. Ex. Sec: Mary A. Ferre, 700 N. Rush St., Chicago 11, Ill. Theme: Strengthening the Home, Source of our Nation's Greatness.
- 17-20, **New York State Assn. for School Business Officials.** At Syracuse, N. Y. Pres: Gray N. Taylor, Asst. Supt. for Business, Schenectady, N. Y.

JUNE

- 21-26, **American Assn. of University Women.** At Kansas City, Mo. Ex. Sec: Dr. Helen D. Bragdon, 1634 Eye St. NW, Washington 6, D. C. Theme: The College Woman—Individual and Citizen.
- 21-27, **American Library Assn.** At Washington, D. C. Ex. Sec: David H. Clift, 50 E. Huron St., Chicago 11, Ill.
- 23-26, **Natl. Commission on Teacher Education and Professional Standards, NEA.** University of Kansas, Lawrence. Ex. Sec: T. M. Stinnett. Theme: Teacher Education.

JULY

- 6-10, **Natl. School Public Relations Assn., NEA.** At Washington, D. C. Ex. Sec: Roy K. Wilson.
- 17-19, **Natl. Assn. of Educational Secretaries, NEA.** At St. Louis. Ex. Sec: Mrs. Angie Holms, Alhambra High School, 308 W. Main St., Alhambra, Cal.
- 25-28, **Natl. Audio-Visual Assn.** At Chicago. Ex. V. P.: Don White, Box 337, Fairfax, Va.

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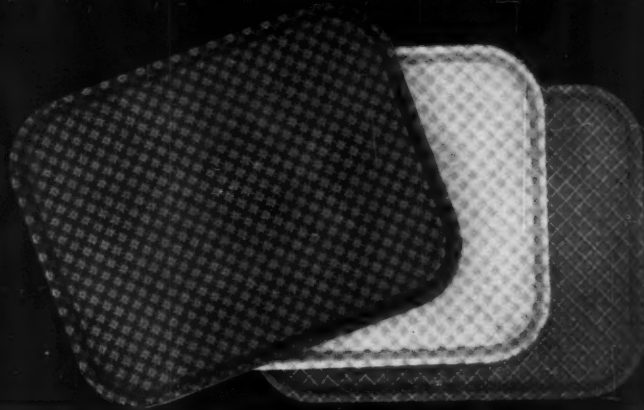
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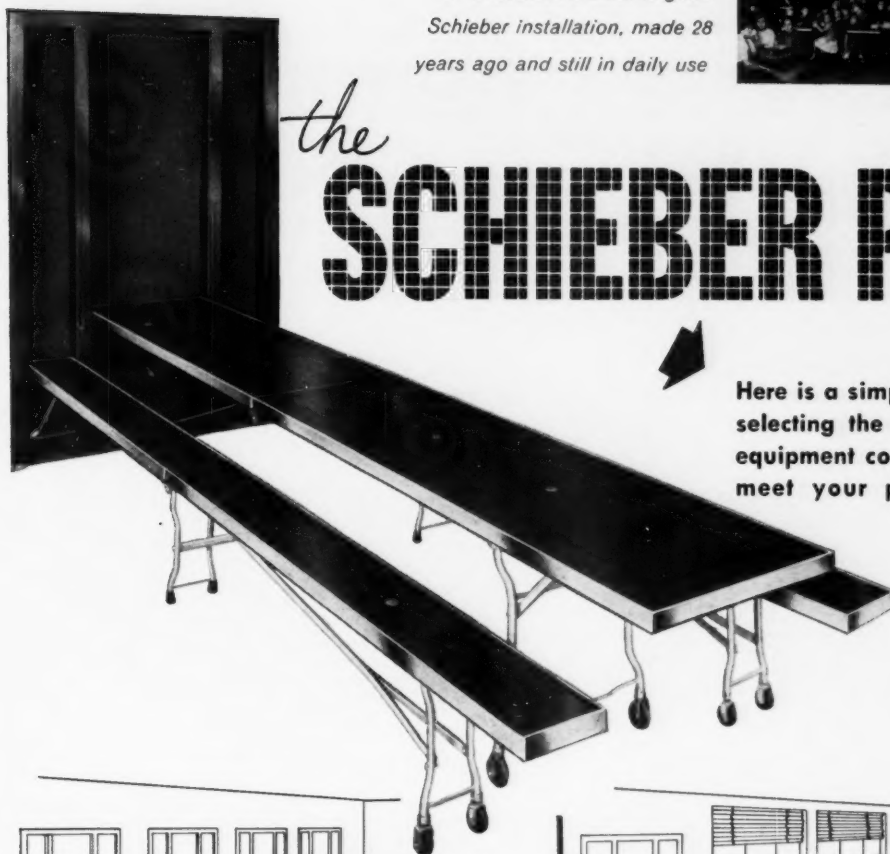
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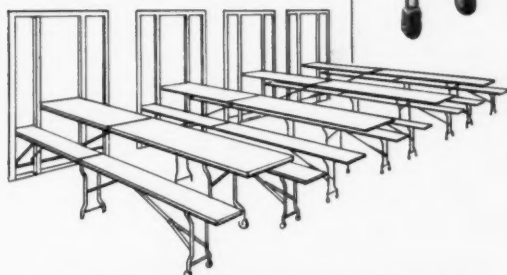
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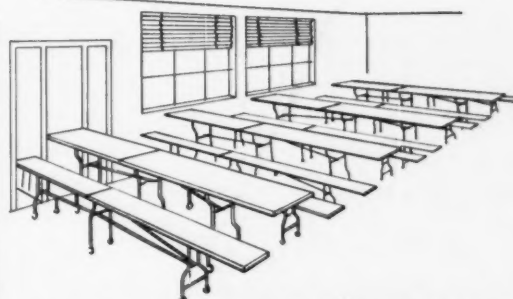


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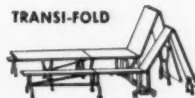
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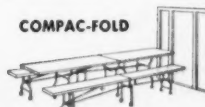
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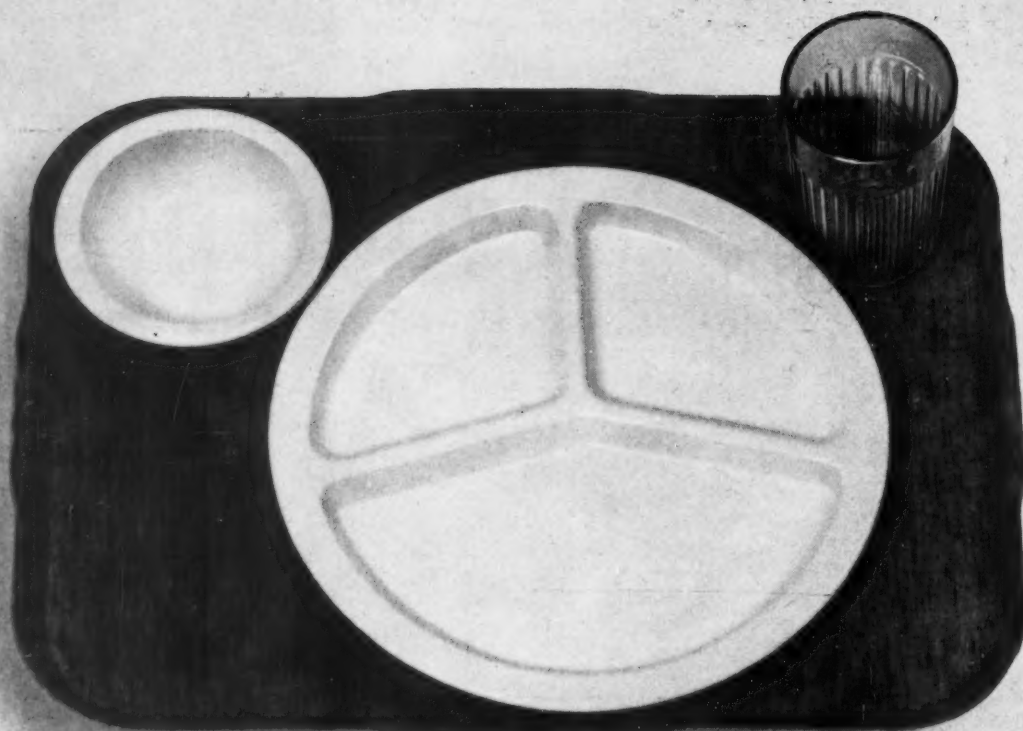


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The School Cafeteria— Auxiliary Agency and/or Instructional Service?

by **FRANK K. MOSHER**, Superintendent of Schools
and **PETER J. DUGAN**, Assistant Superintendent for Business,
Liverpool Central School District, Liverpool, New York



FROM AN accounting point of view, there is but one answer to this question—cafeterias are an auxiliary agency. If the question is looked at more closely, one discovers that an important aspect of the service is its contribution to certain educational objectives. As such it has unlimited potential for being considered an instructional service. Some of the ways the cafeteria may be used as an integral part of the educational program are outlined below.

Organizing the Staff to Accomplish Goals

At present, the Liverpool Central School District operates cafeterias in six buildings under the direction of a cafeteria supervisor. This person works in close cooperation with each individual building principal, who in turn works out with the building staff the desired educational objectives for that particular building.

There are many approaches to cooperative staff planning of the ways in which the cafeteria may be utilized

to achieve its educational potential. For example, cafeteria and noon-hour committees responsible for integrating the lunch period into the total educational pattern have been formed. This committee, on the elementary level, is made up of the resource teacher, art teacher, nurse, dental hygiene teacher, physical education teacher, guidance counselor and the building principal; this group plans and supervises the noon-hour lunch program.

This challenge is also met through the efforts of the Building Cabinet which is made up of grade level chairmen, resource staff chairmen, guidance counselor, helping teacher and principal. This group meets twice each month to discuss administrative and curricular items for fulfilling its main responsibilities—to assist with the administration of the school and to improve communications. One of its duties is supervision of the lunch period.

On the junior high level one of the Liverpool Schools has appointed a

teacher as an individual coordinator to supervise the lunch period. This person has the cafeteria assignment as a regular duty with adjustment made in his teaching "load." The coordinator's main task is to plan the educational program of the cafeteria in cooperation with the staff and building principal.

Student Leadership

A two-fold learning experience takes place through the use of student leadership and assistance in the actual operating details of the lunch program. In the Salt City Elementary School, the lunch periods are arranged so that an upper grade eats with a lower grade. (Grades 5 and 1 eat together, grades 6 and 3; and grades 4 and 2). Homeroom teachers in the upper grades appoint hosts and hostesses who are responsible for a particular table for eight. Before the meal begins the host signals for heads to be bowed and silent grace said. Both the host and hostess assist the younger children with the open-

LUNCH

ing of their milk bottles and thermos. It is the responsibility of the host and hostess to maintain order at the table and to see that table manners are acceptable. In the event of usual mishaps, overturned milk bottles and the like, the host and hostess assist the unfortunate one with the necessary clean-up involved, or see to it that the proper custodial person is called. When the meal is ended, the

host and hostess supervise the clean-up operation. In this particular building the teachers eat with their classes on special occasions or when they feel there is need. Two resource teachers are present at all times to assist with the general supervision of the lunch period. To assist the hosts and hostesses, the guidance counselor and nurse-teacher meet occasionally with them to discuss manners, conversation, courtesy and other details.

In other schools in the district,

some children assist with punching holes in the milk bottle caps, taking empty milk bottles off trays, assisting younger children with their trays to and from the lunch line.

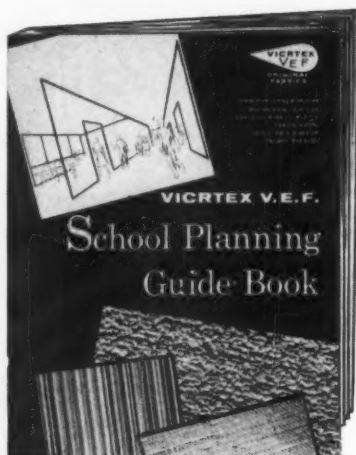
An area which appears to have the greatest educational potential is the use of student committees. This may develop as an adjunct to student government on the secondary school level. Such a plan may be established as a separate committee or through the use of a sub-committee of the student council.

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Adult Supervision

The need for adult supervision will vary with the age group involved. It is generally accepted that whatever plan is followed, the teacher is entitled to a noon-hour "break" of some sort, a time when he or she is free from the responsibility of supervision of youngsters.

To allow for such a "break," many plans are available. One such plan may be to have each teacher eat with his or her own group and then at the end of the period turn the group over to a resource teacher for a short activities period. Many teachers find that by eating with their classes, they can integrate the classroom work in health and eating habits with the actual cafeteria experience.

Another solution to the "noon break" is to combine two groups. By sharing responsibility, one teacher is able to supervise two classes for a period of time and thus frees the other teacher of this responsibility.

A third plan utilized by some schools is to give teachers a supervision free lunch period through the arrangement of resource teachers schedules.

In one of the Liverpool schools operating on a three seating lunch schedule, resource teachers are assigned in teams of two to supervise and coordinate the lunch program. This type of arrangement provides an opportunity, for example, for the nurse-teacher or dental hygiene teacher to work directly with the pupils concerning proper health habits and nutrition.

Another suggestion is the use of volunteer parental assistance. The

THE SCHOOL EXECUTIVE

LUNCH

PTA or Mother's Club may be willing to undertake the noon hour program as a project. Certainly this type of arrangement provides for good school-community relations and provides the teaching staff for a supervision-free lunch hour.

In some schools, custodial or cafeteria personnel are utilized to assist with lunch period supervision, others employ a combination of custodial and teaching personnel to perform this function.

Lay persons employed as teacher "aids" may be assigned to the noon hour program in addition to other services rendered to classroom teachers. Certainly the above suggestions are but a few of the many possible approaches to providing the classroom teacher with a lunch period that is free from supervisory responsibilities.

Health and Manners

It is in the area of teaching good health, hygiene and table manners that we fail most frequently to tap the educational potential which a cafeteria program provides. The kindergarten level is where the instructional aspect of lunch should begin.

The elementary school homeroom teacher is in an excellent position to see that the good habits started in the kindergarten are continued.

The art teacher through posters and student artwork may assist the classroom teacher, nurse or dental hygiene teacher in teaching proper nutrition and health habits. The music teacher by providing music at the close of the lunch is able to teach both the appreciation of good music and the socialization of group singing. Some schools integrate health teaching with other activities by having a particular grade work with the cafeteria manager in menu planning. Often the guidance counselor, the nurse-teacher and dental hygiene teacher will group counsel with the students concerning proper table manners and selection of foods.

It is probably at the secondary

level where the good habits learned at the elementary level meet their stiffest challenge. It is likely, however, that a constant program followed through the elementary years and adhered to at the secondary level may make for change. Evidence in Liverpool indicates that as each grade moves forward, the number of children purchasing lunch in the cafeteria has increased.

The programing of intramural and strenuous physical activities to

compete with a limited lunch period should be avoided. The noon program should be one which provides for a few minutes of rest and relaxation from the routine of the day.

Now you understand why we feel that the cafeteria, although legally constituted as an auxiliary agency of the school operation, can, by imaginative planning and careful organization, play a vital role in the achievement of many of the schools' important objectives.

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EDUCATION FOR THE EXCEPTIONAL CHILD

By L. X. Magnifico. New York: Longmans, Green & Co. 1958. 371 pp. \$4.75.

This book deals with all phases of educating exceptional children, written from the standpoint of a teacher and guidance counselor. The text draws heavily on the personal experience of authorities, citing an overabundance of documented secondary sources. Use of qualified generalizations, and syllogisms which depend on untenable primary premises will appeal to few administrators.

However, the chapters on the handicapped and the retarded are reinforced with more empirical evidence than those related to the gifted; consequently, they provide more promising reference material for interested people.

—DALE L. BOLTON

*Director, Metropolitan Detroit
Bureau of School Studies
Detroit, Michigan*

EDUCATION IN NEPAL

Report of the Nepal Natural Education Planning Commission, College of Education: Kathmandu, Nepal. 1956. 259 pp.

MANUAL FOR TRAINING TEACHERS IN NEPAL

Prepared by the College of Education Staff. Kathmandu, Nepal. 1956. 64 pp.

READINGS IN EDUCATION

By Hugh B. Wood. Lucknow, India: Lucknow Publishing House. 1958. 352 pp.

The most difficult aspect of overseas advisory work is the recommendation of suitable printed materials for suggested training programs.

The Nepal Group foresaw this problem and moved to solve it by organizing cooperative Nepalese and American study groups to develop such materials. This packet from

Nepal is an excellent example and should be of interest to teachers of social studies and comparative education.

Though intended for reading by prospective teachers in Nepal, the first two are crammed with information about people and children of this Asian country and each indicates an orderly and logical approach to the educational objectives of a growing nation.

These books may be obtained in the U. S. from: The American-Nepal Foundation, Box 5111, Eugene, Ore.

—JOHN S. BENBEN

*Head, Department of Education
Northern Illinois University
DeKalb, Illinois*

EDUCATION AND THE SOCIAL ORDER

By Blaine E. Mercer and Edwin R. Carr. New York: Rinehart and Co. 1957. 585 pp.

The schoolman, to be effective in his job, must understand clearly the goals and aspirations of his society, the role of the school in the socialization process and its relationships with other institutions. This book is a selection of readings designed to contribute to this understanding.

It is divided into two parts. Part I deals with the nature of culture, education and socialization, the significance of social stratification in education, social control and the relationships of education and social change, both in America and other societies. Part II concentrates on the nature, function and problems of American education. Carefully selected articles deal with social class and ethnic group problems including the segregation conflict, the social role of the American teacher, the relationships of the school and its local community, the school and moral and spiritual values, the edu-

cational implications of the democratic ideals of freedom and individuality, and the aims and accomplishments of the American schools.

The authors speak clearly and distinctly. Both educators and sociologists will find many familiar names and sources.

—ALLAN F. ROSEBROOK

*Director, Teacher Education and
Certification
State Department of Education
New Jersey*

HOW TO UNDERSTAND AND TEACH TEEN-AGERS

By John M. Gran. Minneapolis: T. S. Denison & Co. 1958. 229 pp.

This book will not create a stir in educational circles. Though pointed to teachers, its content is beneficial to parents as well. There is much good material in this volume. The author writes easily and simply on understanding and teaching teen-agers.

Many of Mr. Gran's chapters abound in anecdotal and illustrative material drawn from actual experience. A good review of the basic concept of public education, objectives, curriculum, etc. is given—nothing new, but a good pattern of general recall. Many suggestions with respect to teenage behavior are acceptable. Excellent guidance-practice procedures are described herein.

I understand teen-agers better after having read this work and that makes it worth the effort. Mr. Gran has a sympathetic eye and ear for the teen-ager and his many problems. Read this book to help point up your thinking.

—WESLEY G. BOVINET

*Assistant Superintendent
Glenbrook High School
Northbrook, Illinois*

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THE STUDENT TEACHER IN ACTION

By Sam P. Wiggins. Boston: Allyn and Bacon, Inc. 1957. 217 pp.

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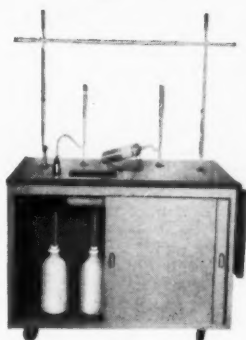
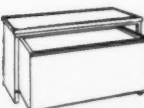
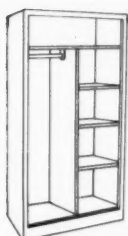
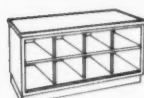
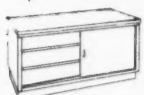
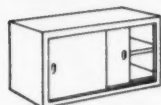
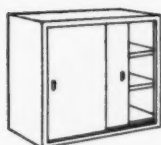
Report by the National Commission on Teacher Education and Professional Standards. National Education Association, 1201 16 St. N.W., Washington 6, D. C. 1958. \$2.

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THE SCHOOL EXECUTIVE

Instruction

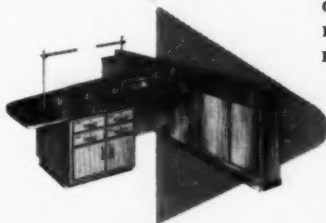
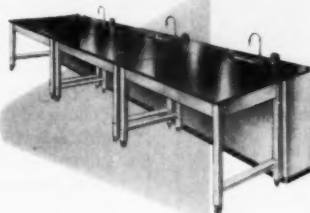
Images of the Future—A New Approach to the Secondary School, by J. Lloyd Trump, is a report of the National Association of Secondary School Principals' 11-man Commission on the Experimental Study of Staff Utilization in the Secondary School. The report proposes that standard classes of 25-35 students be replaced with a flexible organization of instruction that will make use of classes of 10-15 students as well as classes of 100 or more. Larger classes will be for presentation of subject matter and smaller ones for discussion groups. Teacher specialists, with an M.A. as a minimum, will be responsible for all instruction. Salaries, too, will be truly professional. Fully certificated teachers, with less experience will handle the discussion groups. 47 pp. Copies available from the Commission on the Experimental Study of the Utilization of the Staff in the Secondary School, 200 Gregory Hall, Urbana, Ill.

Library Services

Books and Libraries—Tools of the Academic World, by Flora B. Ludington, is one in a series of three pamphlets introducing the three major types of libraries which serve the general public; they are written with the basic assumption that "parents, educators, and taxpayers of the country are convinced of the need for a better-informed America and welcome information about how it can be achieved." Published by the American Library Association, 50 East Huron Street, Chicago 11, Ill. 14 pp. 25¢.

Fountains, Not Reservoirs—The Public Library, by Arthur H. Parsons, Jr., is the second in a series of three pamphlets published by the American Library Association, 50 East Huron Street, Chicago 11, Ill. 16 pp. 25¢.

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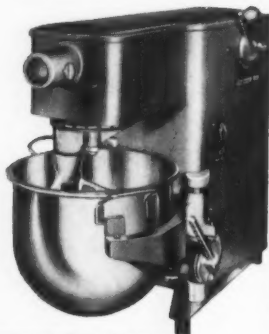
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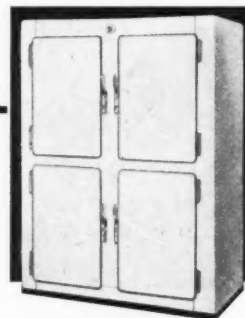
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Every Child Needs a School Library, by Mary Virginia Gaver, is the third in a series of three pamphlets published by the American Library Association, 50 East Huron Street, Chicago 11, Ill. 16 pp. 25¢.

State Plans Under the Library Services Act, prepared by the Library Services Branch of the U. S. Dept. of HEW, is a compilation of summaries of state plans and programs submitted for the first year of operation under the act, which is designed to place public library services in their rightful place in the educational scheme. Bulletin No. 10. 84 pp. 30¢.*

A Book and Magazine List for High-School Libraries, by N. Orwin Rush and Louis R. Kilzer, is published by The Curriculum and Research Center, College of Education, University of Wyoming, Laramie, Wyoming. 47 pp. \$1.

Curriculum

Planning and Organizing Science Programs in Elementary Schools, by Martha Glauber Shapp, is designed to serve the teacher as a guide to the use of *The Book of Knowledge* in planning and organizing the elementary science program. Published by the Grier Society, Inc., National School and Library Division, 2 West 45th Street, New York 36, N. Y. 80 pp.

Guide to Curriculum Improvement in Grades 7, 8, 9, is designed to guide teachers and supervisors in the most effective ways of improving their school programs, and gives special attention to an understanding of adolescents, and to the need of curriculum improvement. Published by the Bureau of Curriculum Research, Board of Education of the City of New York, Publications Sales Office, 110 Livingston Street, Brooklyn 1, N. Y. 114 pp. 50¢.

* Available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C.

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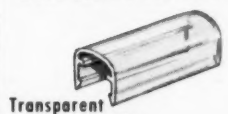
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This month's New Product Review section is a guided tour of new products that were unveiled at the exhibit of the American Association of School Administrators' convention in Atlantic City. In this colorful bazaar of school products, we hope that you will find fresh solutions to your equipment needs. To secure more information, just turn to the yellow card at the back of the book, circle the number that corresponds to the review and mail the card to us. We will be happy to forward your request to the manufacturers concerned.

SE-401 STUDENT AND TEACHER CHAIR *Makes Debut at Atlantic City*



Highlighting the new 1959 Contemporary Line of school furniture by Brunswick-Balke-Collender, is a functional, eye-appealing student and teacher chair. Light-weight and movable, it is constructed of molded fiberglass, the most indestructible classroom material known. A free-standing frame, utilizing a new system of two tapered "U" understructures of tubular steel, assures resiliency and flexibility.

The chair is manufactured in eight sizes, geared to the proportions of kindergarteners through collegians. The line is available in a number of beautiful colors.

THE BRUNSWICK-BALKE-COLLENDER Co., 623 S. Wabash Ave., Chicago 5, Ill.

SE-402 STAGE CURTAIN TRACK *Made of Aluminum*

Two new items were introduced by Automatic Devices Co. at the A.A.S.A. convention. A new aluminum stage curtain track called Rig-I-Flex is obtainable as a cord-operated curved track, a cord-operated straight track, and a "walk-along" cyclorama track. It has been designed especially for medium to heavy

weight stage curtains, and the track channel can be bent right on the job to virtually any degree or radius.

The new 100 Series Tom Thumbs were also shown. These are miniature drapery motors designed for institutional use. The motors are rated at 1/6 hp and are capable of drawing medium-weight curtains.

AUTOMATIC DEVICES Co., 2121 S. 12 St., Allentown, Pa.

SE-403 LANGUAGE LABORATORY SYSTEMS *Offer New Instruction Concept*



The Language Laboratory is a modern "learn-by-doing" teaching technique which permits students to become fluent with the spoken as well as the written language. Generally, these laboratories are large rooms which are divided into rows of individual semi-soundproof booths. Each booth is equipped with a microphone, a headset, and an amplifier which has a selector switch for choosing the desired language. In the basic "Listen-Respond" system, the student enters the booth, selects the assigned lesson channel and listens to a tape recording of the current lesson. He uses the microphone to imitate aloud exactly what he hears. By listening to his own voice through the headset, the student is able to compare his pronunciation with that

of the recording. Since as many as ten separate language programs can be distributed simultaneously, one language laboratory system will handle all foreign language requirements.

RADIO CORP. OF AMERICA, Language Laboratory Sales, Bldg. 15-1, Camden 2, N. J.

SE-404 LABORATORY FIXTURES *Comprehensive Line Announced*

T & S Brass & Bronze Works, Inc. has entered the laboratory field with a complete new line of service fixtures. Called Lab-Flo, the line includes fixtures, hose cocks, remote controls and combination units for water, steam, gas, air, etc.

Detail drawings and catalog information are available on request.

T & S BRASS & BRONZE WORKS, INC., 128 Magnolia Ave., Westbury, L. I., N. Y.

SE-405 PORTABLE BASKETBALL GOAL *Is Completely Official*

The Gibson Match-Pla Porta-Goal was designed to meet the need for an offset Porta-Goal to be used in official games, one under the baskets of which players could run or dribble for set shots without the danger of running into the base or supporting pipe. This goal is 100% official as to design and it will not tip if a 200 lb. boy hangs on the rim of the basket which is offset 4 feet from the edge of the base (6 feet from the supporting pole).

It moves easily on any hard, smooth surface, having a sturdy cast-iron base in which are three large rubber-tired wheels. All of the necessary weight is cast in the base.

GIBSON PORTA-GOAL, 370 Grand Ave., Oakland 10, Calif.

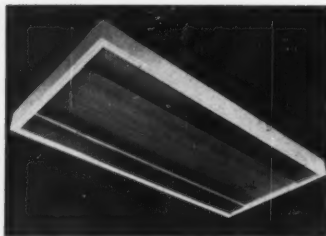
SURFACE LIGHTING

SE-406

With Recessed Appearance

The Daylume Series is a new line of ultra thin surface mounted elements. These units were designed to meet contemporary architectural requirements for surface lighting with recessed appearance. Only 3/4" thick, Daylume fixtures combine light weight with strong construction.

Combining 50 models in six sizes, the new series is available in 1' x 4', 1' x 8', 2' x 2', 2' x 4', 2' x 8', and 4' x 4' in two, four, six and eight lamp arrangements of two or four foot lamps. Installation of



these elements is not restricted by structural or mechanical components. Daylumes are equipped with separately fused C.B.M. ballasts. Units can be wired through sides, center, or ends, for

SE-295



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end to end, side by side, or end to side installation. Recessed back plate design assures snug alignment with ceiling.

DAY-BRITE LIGHTING, INC., 16 N. 9 St., St. Louis, Mo.

SE-407

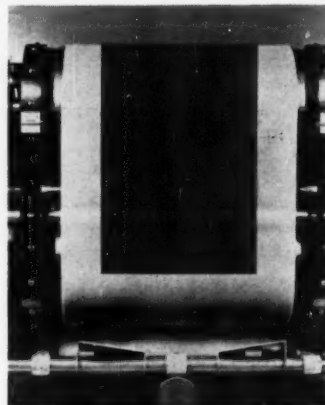
SCHOOL FURNITURE LACQUER**For Unusually Tough Finish**

O'Neil Duro's School Furniture Lacquer is a crystal-clear, extremely tough, wear-resistant finish, specially formulated to stand up under the unusual abuse experienced in public schools. Application is by spray or dip and two coats of gloss and a top coat of semi-gloss are recommended.

The finish resists marring, abrasion and unusual abuse, is easily cleaned with a damp cloth, and has high color retention.

O'NEIL DURO CO., P. O. Box 1166, Milwaukee, Wis.

SE-408

DUPLICATOR LEVER ASSEMBLY**Uses Small Stencils Without Masking**

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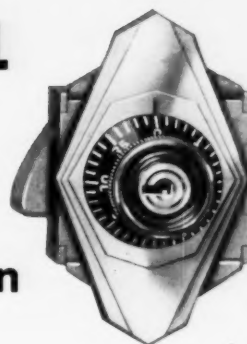
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THE GEORGE F. CRAM CO., INC., 730 E. Washington St., Indianapolis 7, Ind.

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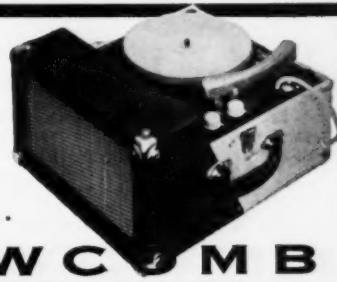
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Address _____

City _____ Zone _____ State _____

Monroe

FOLDING PEDESTAL BANQUET TABLES

SOLD DIRECT

Over 50 years experience and service back Monroe Folding Tables and other products. Largest factory in the world selling folding tables direct to schools, churches, lodges, clubs, hotels, and other institutions.

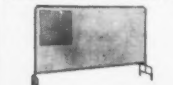
Factory Prices and Discounts

Our catalogs are our only salesmen. Our manufacturing and distribution savings are passed on to the organizations and institutions like the over 51,000 whom we have served.

All Steel Folding Chairs
Monroe-Approved chairs in attractive range of styles, sizes at direct prices. Excel in comfort, durability and ease of handling.



Transport Trucks For Tables and Chairs
Any room set up or cleared in a jiffy. One man can do it. For both moving and storing. Model T38 shown.



Portable Partitions
Panels in tubular steel frames, on swivel glides or casters. Idle space converted to useful areas. Also chalkboard finished, with cork tack boards as shown.



MONROE No. 3 Deluxe 30x96 in. 30 in. high

Easily Seats 10 (5 on each side)

Maximum seating capacity and comfort. Exclusive MONROE folding steel pedestals eliminate knee interference. Folds flat. 12 tables "stack" only 20 inches high. Ideal for multiple dining and recreational activities. This model offered in 8 sizes, in 5 Monroe Top Finishes—Tempered Masonite (as shown), Ormacec Blon-D and Melamine Plastic.

Monroe Fold Lite Utility Tables

Conventional steel folding legs. 10 sizes from 32" x 32" up to 3' x 10' and 4' x 8', special sizes to order. Masonite and Ormacec Blon-D tops.



Adjustable Height Folding Tables

Can be adjusted any height 20 to 30 inches. Folding pedestals or legs. No tools required. Will not slip or collapse.



Monroe Folding Risers and Platforms

Most modern staging choral groups, etc. Ruggedly built sections with steel folding legs. Many standard settings or specials to order.



COMPLETE CATALOG FREE

House, purchasing or kitchen committees of churches, schools, clubs, lodges, etc. Write at once for newest Monroe Line Institutional Catalog in colors. Complete prices, discounts and terms. Address:

THE MONROE COMPANY 66 Church St. COLFAX, IOWA

GATES PARTITIONS

Acorn Wire and Iron Works

4940 S. Kilbourn Avenue • Chicago 32 • Ludlow 5-0600

NEW YORK
101 Park Avenue
MUrray Hill 9-7370

LOS ANGELES
1709 W. Eighth Street
HUBbard 3-4747

1959 BUS CHASSIS LINE SE-412

**Designed for Safety, Durability,
Economy**



A diversified line of bus chassis, designed for the demands of both small and high-capacity loads, is included in the 1959 Chevrolet series. Five chassis on four wheelbases have been engineered specifically to meet the exacting standards of the school bus field.

Safety, durability and economy have been built into the line with fresh ornamentation emphasizing the latest models.

CHEVROLET MOTOR DIV., GENERAL MOTORS CORP., General Motors Bldg., Detroit 2, Mich.

DRY MOP CLEANER SE-413

Vacuums Quickly and Easily



The Vacuslot system consists of a centrally-located vacuum producer, dirt separator, piping and flush mounted floor inlet valves. In schools where large dry mops are used for cleaning, dirt and litter can be pushed to the Vacuslot. Debris is then whisked away through the piped system to a dirt separator in the basement. Mops are vacuum cleaned simply by passing back and forth across the Vacuslot.

The system has many auxiliary uses, including wet pick-up. A light portable

separator permits picking up water and suds used in floor washing. Also, attachment of a hose to a Vacuslot valve permits vacuuming of carpeted areas, stairs, entry-ways, walls, venetian blinds and furniture.

SPENCER TURBINE Co., Hartford, Conn.

DISHWASHER SE-414

Made of Stainless Steel

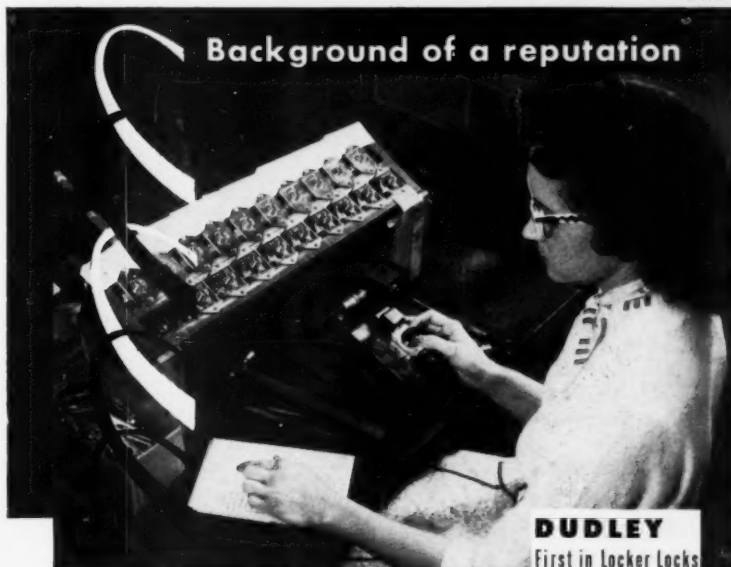
The newest Jackson Dishwashers, Models 10A and 10 A-B with built-in

booster heaters, wash, rinse and sanitize 950 dishes per hour under average operating conditions.

Features include: unusual round design, which is more efficient and economical to construct—no seams to weld and no costly grinding; stainless steel construction which resists deterioration by harsh detergents; greatly increased wash jet pressure which cuts soil from dishes at high velocity; and new built-in vacuum breaker which prevents back siphonage into water supply lines.

THE JACKSON PRODUCTS Co., 3703 E. 93 St., Cleveland 5, Ohio.

SE-306



Just to Make Sure

When a Dudley Locker Lock is delivered to a user, it works—beyond any doubt! This photo shows why. The component parts of the lock are assembled, placed in an air press where steel fingers under pneumatic pressure clamp the elements just as they would be when installed on a locker door, and the combination is dialed. If there are any "bugs," they must show up here, and no lock passes this inspection if not perfect.

You can always depend on the protection given by Dudley Locks. Ask your representative. He will helpfully discuss your locker lock needs—without obligation, of course.

**DUDLEY
LOCK CORPORATION**

Dept. 319, Crystal Lake, Illinois



**RD-2
Rotating Dial
Combination
Padlock**

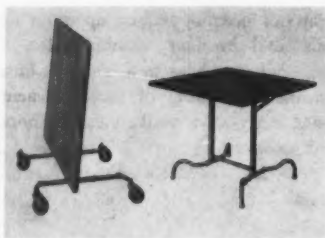
Solid stainless steel case, revolving dial with 64,000 possible 3-number combinations. Self-locking when shackle is pushed home.

The standard of controlled locker protection since 1921

MULTI-PURPOSE TABLE SE-415**Offers Choice of Tops, Bases**

A multi-purpose table offering a choice of three tops and two types of bases has been developed for the schools by Sico Mfg. Co., Inc. A folding design is also incorporated in this newest Sico table, which can be used in the cafeteria, library, game room, display section and other school areas requiring adaptable equipment.

The unique folding device—which lacks latches, locks and levers—permits any of the three tops to be easily tipped



to a vertical position for storage. When folded each additional table nests in 3" of space. Tops offered in this model 300 series include a 36" square piece, one

40" in diameter and a rectangular top that is 30" wide and available in lengths of 48", 60", and 84".

SICO MFG. CO., INC., 5215 Eden Ave., S., Minneapolis 24, Minn.

ROLLING LABORATORY SE-416
Designed for Elementary Science

The Welch Rol-a-Lab has been developed to meet the increasing interest in science in the elementary school. It is a complete outfit consisting of movable demonstration table, storage cabinet, apparatus, expendable supplies, burner and gas supply, waste container, teacher's manual for performing 138 procedures covering 30 basic topics in elementary science.

In addition to the extensive apparatus supplied with the Rol-a-Lab Table and Cabinet, space is provided for the storage of additional materials. It is thus sufficiently flexible for any teacher of elementary science in the fifth, sixth, seventh, eighth, or ninth grades. In use, the cabinet would be kept in one location, the required tray removed, and the table wheeled to the classroom.

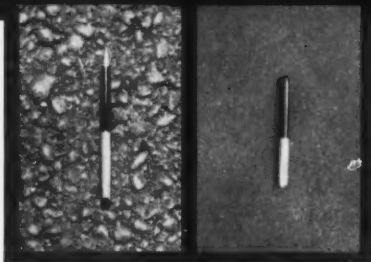
W. M. WELCH SCIENTIFIC CO., 1515 Sedgwick St., Chicago 10, Ill.

SE-307**For School Playgrounds**

WALK-TOP surfaces
are real Life Savers*

Here's Why:
WALK-TOP®
Surfaces are:

Non-Abrasive • Fast Draining
True Plane • Smooth Textured
Resilient • Wear-Resistant
Easy to Maintain • Economical



Compare: smooth, Walk-Top with rough, "road-type" pavement; then Choose the surface you want for your playground!

Now proved on millions of square feet of play areas from coast to coast, Walk-Top is unequalled for safety, performance, appearance, and overall economy. Ahead of new playground construction or resurfacing of existing pavements, call our nearest office for complete information.

*By permission of Beech-Nut Life Savers, Inc., for candies

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BITUMULS® Emulsified Asphalts • **CHEVRON®** Paving Asphalts • **LAYKOLD®** Asphalt Specialties

FLOOR MACHINE SE-417
Polishes 10,000 sq. ft. in 30 Minutes

Multi-Clean's giant new floor machine, the MC-31, is specifically recommended for hallways and large unobstructed floor areas. It will scrub, polish or steel wool a floor in 1/4 the time it takes with a 16" machine. It has a brush-covering area of 855 sq. in. as compared to 201 sq. in. on a 16" machine.

This unit has a powerful 1 1/2 h.p. 115-230V AC motor and is as easy to handle as a Lite-12. The machine weighs 165 lbs. A heavy-duty 3-conductor cable has twist lock connector to make it quick and easy to attach or remove the cable from the machine.

MULTI-CLEAN PRODUCTS, INC., 2277 Ford Parkway, St. Paul 16, Minn.

THE SCHOOL EXECUTIVE

Best for Training in Electronics

knight-kits

an ALLIED RADIO product



"Ranger" AC-DC Radio Kit
Popular 5-tube superhet radio project. Thousands used in shop training. Teaches radio construction. Complete with cabinet.
83Y736. Only.....\$16.95



"Space-Scanner" Receiver Kit
Exciting school project; tunes world-wide short wave as well as broadcast. Packed with interesting features.
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See our catalog for many other fine Knight-Kits



12-in-One Electronic Lab Kit

Widely used by schools for instruction in electronics. Performs 12 separate experiments with only a simple wiring change required for each project (components, once mounted, need not be disassembled). Projects are: receiver, amplifier, "broadcaster", code oscillator, flasher, timer, transmitter, electronic relays, etc. With all parts, including relay, photocell, microphone. Shpg. wt., 3½ lbs.
83Y272. Only.....\$14.95



FREE ALLIED'S
452-PAGE

1959 CATALOG
Offers everything in electronics for the school: Knight-Kits for training; sound and recording equipment; lab instruments, tools, books, electronic parts. Write for FREE copy today.

ALLIED RADIO
100 N. Western Ave., Dept. 8-C9
Chicago 80, Ill.

SE-309

LEADING LABORATORIES SPECIFY

Lab-flo



LABORATORY SERVICE FIXTURES for quality performance, longer life

No matter how fine your laboratory furniture is regarded—it will operate only as well as its fixtures. T&S LAB-FLO Service Fixtures give you dependable quality that makes all laboratory equipment look better, work better and serve

longer. Specially designed and engineered for heavy duty laboratory service, LAB-FLO assures perfect "teamwork" for your new or remodeled laboratory. Ask your architect and plans group to specify it.



COMPLETE INTEGRATED LINE OF QUALITY-BUILT LABORATORY FIXTURES • HOSE COCKS • REMOTE CONTROLS • COMBINATIONS for water, distilled water, steam, gas, air, etc.



See your local dealer or write direct for LAB-FLO Catalog Information



T & S BRASS AND BRONZE WORKS, INC.

128 Magnolia Avenue, Westbury, L.I., New York • EDgewood 4-5104

SCHOOLS



**CUT
CLEAN-UP
TIME**

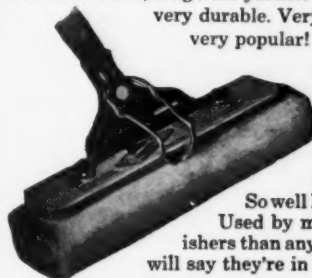
**in 1/2
with**

**BIG X SWEEP
MOPS**

BIG X is without equal...snatches up dust on contact! A high-speed sweep mop complete with our exclusive GIBALTAR brace...Amazing durability...Available in widths up to 5 feet!

VICTORY Wet Mops

Cost least to use because of their high efficiency and double-length life...16-ply cable-twist live, long-fibre yarn...Very, very durable. Very, very popular!



HOLZ-EM Applicators

So well known they need no praise. Used by more professional floor finishers than any other applicator. You, too, will say they're in a class by themselves.

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AMERICAN STANDARD products from your regular supplier. He has them or can get them for you. If not, write us direct.

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GOUGLER MASTER KEY COMBINATION LOCKS

New favorites for schools.

ECONOMICAL
CONVENIENT
DURABLE
SECURE
SAFE

GOUGLER KEYLESS COMBINATION LOCK

Type No. 40

Unique type Master Key

Key machines cannot duplicate

Gougler Master Key Locks dependably protect privacy of users, yet allow for emergency opening by officials. Thin, modern design. Flat back. The lock that clicks.

Just count the clicks

Our popular keyless lock. Thousands sold.

Type No. 30

Both of these models have die cast cases. All parts are impervious to moisture. You can open them in the dark — just count the clicks.

Write for sample of either lock and factory prices

C. L. GOUGLER KEYLESS LOCK CO.
705-769 Lake St. Dept. 4 Kent, Ohio

FLO-PAC

New "SWEEPSTAKE" Dust Mop

WITH REVOLUTIONARY
SWIVEL-FLOW CONNECTOR
S-P-E-E-D-S CLEANING EFFICIENCY

Save time and labor with "Sweepstake". Instant maneuverability permits use of one mop, regardless of size, to handle all your dusting areas. Generous filling of finest quality cotton yarn snatches up grime at a touch. Mop part easily detachable for washing. Extra sturdy 5 ft. hardwood handle locks—permanently—into swivel-flow connector.

THIS MOP
GETS IN!
AROUND!
UNDER!

In six widths 12" to 30". Popular 24" complete \$9.78.

ORDER FROM YOUR JOBBER

Everything in maintenance needs!

FLOUR CITY BRUSH CO.	PACIFIC COAST BRUSH CO.
1501 4th Avenue South	2030 E. 7th Street
Minneapolis 4, Minn.	Los Angeles 21, Calif.



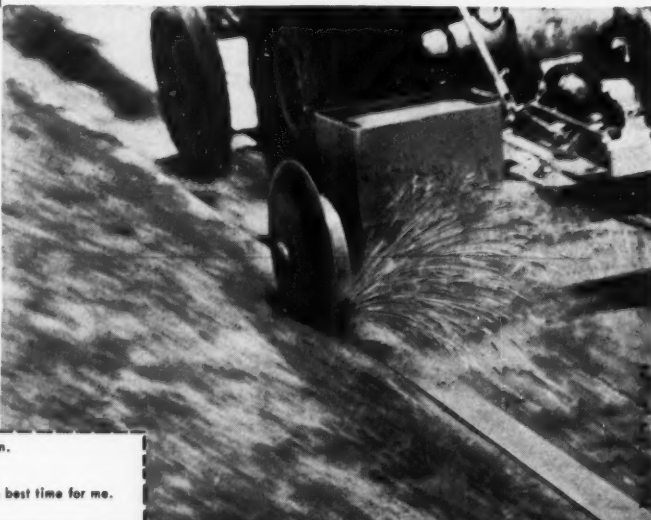
KURB DRESSER

EDGES 80 MILES OF TURF PER DAY!

A park department official recently testified that one "Kurb-Dresser" does the work of 12 men using conventional equipment — freeing these men for other maintenance work. This rugged, tractor-drawn industrial edger can easily slice through a 4" soil build-up, or as deftly trim random grass runners, overlying curbs, sidewalks, highways, driveways, airstrips, etc. — at speeds up to 15 miles per hour.

"Kurb-Dresser" fits any three-point-hitch tractor. Blade automatically holds steady course even if tractor path deviates as much as 16 inches. Either flush-cuts or simultaneously cuts-and-troughs, on dry or wet turf. Operates with or against traffic; from street or turf areas. Non-spinning cutting blade safeguards operator and bystanders against danger from flying debris!

Whether you edge weekly, or "clean-up" only once a year, "Kurb-Dresser" pays for itself again and again. Sold nationally through leading turf-equipment distributors. Full details sent, or demonstration on request.



FREE

DEMONSTRATION,
LITERATURE,
SPECIFICATIONS,
QUOTATIONS

- ☐ Send detailed "Kurb-Dresser" information.
☐ Arrange a convenient demonstration.

_____ is the best time for me.

Name _____

Title _____

Firm _____

Address _____

City & State _____



**MANUFACTURING
COMPANY**

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**CLEBURNE,
TEXAS**

GLOBE LINE

SE-418

In 12" and 16" Models

A feature of the Weber Costello AASA exhibit was their Educator Globe line, a completely new series of 12 and 16" classroom globes. These globes are designed to provide a completely new globe program for all grade levels. Weber Costello's new Hy-Press Process makes 16" globes available at exceptionally low prices.

WEBER COSTELLO Co., Chicago Heights, Ill.

SE-419

BASKETBALL FOUL INDICATOR**Attaches to Present Fair-Play Boards**

The Fair-Play Foul Indicator is designed to provide complete team and personal foul totals on the scoreboard. The coach and players know at a glance the total team fouls and may vary game strategy accordingly. When a foul is called on a player of either team, his total number of personal fouls is posted on the scoreboard.

Team foul total is shown by big 9" numerals placed below the Home and Visitor panels. Player personal foul is shown by 9" numeral located between the team foul numerals with the word "Player" above. A single, small control panel operates both Team and Player Foul numerals.

FAIR PLAY SCOREBOARD Co., 1708 Delaware, Des Moines 17, Iowa.

March, 1959

FIRE ALARM SYSTEMS

SE-420

Three New Types Announced

Three new compact fire alarm systems for schools are now available from the Cincinnati Time Recorder Co. One is a master code, closed circuit, supervised; the second is a non-code, closed circuit, and supervised; while the third is non-code, open circuit, and non-supervised.

The master code rings four rounds of a predetermined common code to all sounding devices on the system; a non-code type causes all sounding units to ring continuously.

Closed circuit supervised models have

a trouble bell included in the system—this rings continuously if there is any break in the circuit and until the break is repaired. With this safety feature, it is easily determined if the system is in operating condition at all times. The open circuit, non-supervised type has this feature omitted.

The systems can be operated by individual break glass fire alarm stations, of hammerless design, and two types of thermostats—rate of rise and fixed temperature.

CINCINNATI TIME RECORDER Co., Systems Div., 1733 Central Ave., Cincinnati 14, Ohio.

SE-314

**from Switzerland to South Dakota...**

NISSEN TRAMPOLINES*

are in constant use by over 8,000 elementary schools, high schools and colleges throughout the world...

*Reg. U. S. Pat. Off.

NISSEN TRAMPOLINE CO.

Home Office and Factory: 200 A. Avenue, N. W., Cedar Rapids, Iowa, U. S. A.

Branch Offices and Factories: Nissen Trampoline Company, LTD.
Hainault Works, Chadwell Heath
Romford, Essex, England

IF IT ISN'T A NISSEN
IT ISN'T A TRAMPOLINE

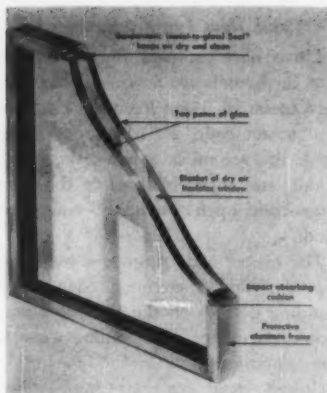
Nissen Trampoline of Canada, LTD.
Ter. A., Box 327, Toronto 1, Ont.
Nissen Trampoline
Gümligen (Berne) Switzerland

SE-421

INSULATING WINDOW GLASS UNIT For Both Wood and Metal Sash

With emphasis on the use of all glass walls to create bright, attractive classrooms and lower maintenance costs in modern schools, Libbey-Owens-Ford Glass Co. has introduced GlasSeal Thermopane, an all-glass insulating window unit.

This unit is manufactured from DSA window glass and has a nominal air space between the sheets of 3/16". It is available in 65 standard sizes, ranging from 14" to 38" in one direction to 62"



SE-315

ROOFS...\$10,
WALLS...\$5,
FLOORS...\$7,

Why Program Preventive Maintenance of School Buildings

A preventive maintenance program for your school will . . . catch trouble before it becomes expensive . . . provide a budgeted program to eliminate sudden large expenditures . . . permit efficient use of labor by programing. The Tremco Man can show you how to adopt this program. His trained inspection, diagnosis and recommendation plus application instruction of the job, assure economy and satisfaction . . . whether the work is done by a contractor or your own maintenance crew.

"You can't buy experience by the gallon", the TREMCO MAN brings it to every job . . . Call him and ask for a demonstration of his "know-how".

Get your free copy of
Tremco's Revised School
Building Maintenance
Program . . . ask your
Tremco Man or write us.



THE TREMCO MANUFACTURING COMPANY, 8701 Kinsman Road, Cleveland 4, Ohio

**ROOFS
FLOORS
PAINTING
WATER REPELLENTS
SASH**

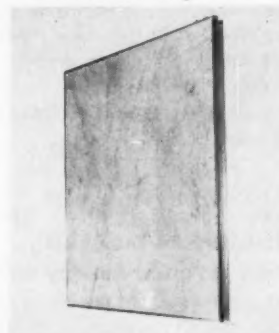
in the other direction within a total area of 1440 sq. in. Non-standard sizes are available on minimum orders of 500 units.

The air between the two lights of glass is cleaned and dehydrated to minimize condensation and act as an insulator, trapping heat in during winter, and helping air conditioning operate more efficiently during summer. The GlasSeal unit may be set into a window sash like a single piece of glass and the sealing point is located so that it is out of sight and cannot be touched or damaged when glazed.

LIBBEY-OWENS-FORD GLASS CO., 608 Madison Ave., Toledo 3, Ohio.

SE-422

MARBLE CURTAIN WALL PANELS Have Insulating Core



Developed jointly by the Vermont Marble Co. and the Maul Macotta Corp., a revolutionary new building material combines a facing of marble 1/2" thick with a core of rigid insulating material encased in a frame of extruded anodized aluminum. The new panel units make possible savings in weight and construction costs to permit their use in the most competitively designed structures.

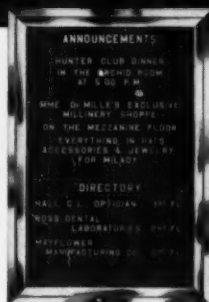
Weatherproofing is assured by the unitized construction of each panel. Marbles are permanently bonded to 1/8" asbestos-cement board, which in turn, is also bonded to lightweight rigid insulating material. The insulation is bonded to a standard interior facing also of 1/8" asbestos-cement board, which can be painted or covered with a variety of interior decorative materials.

Three types of panels are being manufactured: the Series 100, flush mount, for opaque curtain and panel walls; the Series 200 panel for grid walls and mullions; and the Series 300 panel for use in window walls, as spandrel panels above or below window units.

VERMONT MARBLE CO., Proctor, Vermont.

MAKE SURE IT'S READ...
MAKE SURE IT'S A

DAV-SON BULLETIN BOARD



CHALK BOARDS

All sizes, in black or green, smooth Dur-O-Plate surfaces.

CHANGEABLE LETTER STYLES
for indoors or outdoors, with or without glass doors and lighting, metal or hardwood frames.

TYPES & STYLES FOR EVERY NEED
Handsome, sturdy, highly visible and attention-compelling, DAV-SON BULLETIN BOARDS get the message across quickly and surely.

CORK BOARDS

Wide selection, self-sealing, in metal or wood frames. With or without glass doors and lights.



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SELECTS AMERICAN LOCKS

American LOCKS for MODERN SCHOOLS

One of the newest and most modern schools in the country (above) has equipped all their lockers with Junkunc-American key-combination padlocks.

Good reason why!! Heavy stainless steel case—attractive blue dial, white numbers and divisions—easy to see—easy to open—self-locking—automatic tumbler disarrangement—special key which cannot be duplicated—free combination charts supplied with each order—two year guarantee.

A highly efficient and serviceable combination padlock specially low-priced to fit pared school budgets.

For details and specifications request a FREE copy of BULLETIN 5100.



1145 W. Garfield Blvd., Chicago 21, Illinois



BUYING BOUND-TO-STAY-BOUND PREBOUND BOOKS is like buying an insurance policy to protect your budget — just because you get so much more for your money.

More and more school superintendents, purchasing agents and librarians are discovering this truth daily which accounts for the ever-increasing demand for BOUND-TO-STAY-BOUND PREBOUND BOOKS.

Available in over 16000 popular juveniles titles — most for immediate delivery. Send for catalog and special lists today.

NEW METHOD Book Bindery Inc.

MANUFACTURERS OF
"BOUND-TO-STAY-BOUND" PREBOUND BOOKS
JACKSONVILLE, ILLINOIS

MAKE A
BETTER
SHOWING

with...

OPTIVOX
PORTABLE EASEL

The newest thing for visual aid is this lightweight, portable Optivox easel. 29" x 39 1/2" steel board finished in "rite-on" green, adaptable for chalk, charts, or magnets. Aluminum legs fold to convert from 70" floor easel to table model. Net weight, 17 lbs. Comes with eraser, crayons, chalk, pointer, and removable chalk tray. Only \$44.95. Carrying case and lamp fixture are extra equipment.



PIXMOBILE
PROJECTION TABLE



...lets you prepare your presentation in advance, roll it in, and use it when you're ready. Sponge rubber top, 4" swivel wheels, with brakes that hold on incline. Vibrationless. Several models and heights. 42" table only \$32.95.

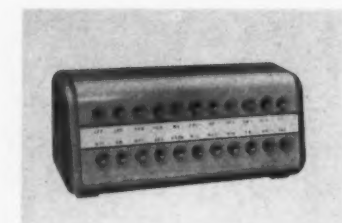
WRITE FOR LITERATURE AND DEALER'S NAME. SOME DEALER TERRITORIES STILL OPEN. WRITE...

THE ADVANCE FURNACE CO.
2310 EAST DOUGLAS WICHITA, KANSAS

INTERCOM SYSTEM**SE-423****Is Efficient, Convenient**

With the Executive Quick-Call service, and the P-A-X System, the school administrator can have even more direct control and speed. The unit eliminates dialing and connects instantly to the telephones called most frequently.

The Executive Quick-Call unit has 20 direct lines to people called most often. On the "inside" calls, just press the appropriate button and the called person's phone rings immediately. If the person called is using his telephone,



just push another button and he hears a tone in the background of his conversation. Hearing this sound, he cuts short his conversation, presses the cradle button and is connected to your line. Or, as

an optional feature, you can push another button and cut in on the busy line.

AUTOMATIC ELECTRIC SALES CORP., Northlake, Ill.

STAGE DIMMER SYSTEM**SE-424****Is All Electronic**

Century Lighting has introduced Cen-Trol, an all-electronic dimmer system with marked advantages of size, weight, efficiency and cost. In Cen-Trol, the levels of light intensity are regulated by C-Core, a silicon controlled rectifier. This electronic unit weighs less than an ounce, is smaller than the diameter of a dime and less than 1 5/8" long. Switching speed is measured in millionths of a second. C-Core requires no warm-up time; activated by as little as .015 watts, it goes into action instantaneously. Since its operating heart is a tiny crystal of silicon, it should last forever.

Because of Century's new circuitry, C-Core operates quietly and smoothly, with none of the usual heat problems.

CENTURY LIGHTING CO., 521 W. 43 St., New York 36, N. Y.

TILE FINISH**SE-425****For Coating Many Surfaces**

Glid-Tile is a specialized, polyester resin, spray finish that gives a high degree of coverage and beauty comparable to glazed, ceramic and structural tile. Although this product sprays on the same as paint, it is a true plastic. It is a thermosetting, "self-baking" material that becomes extremely hard, non-porous and chemical-resistant after curing. Glid-Tile is available in eggshell or glossy finishes of almost any pastel color—in plain, spatter or web effects.

This product may be used on many types of surfaces: concrete blocks, coarse cinder blocks, poured concrete (above grade), cement-asbestos panels, white coat plaster, wallboards, wood and metal.

THE GLIDDEN CO., 900 Union Commerce Bldg., Cleveland 14, Ohio.

SE-320

from
STACOR
...new functional units
for your school

THE FLEX-MASTER
LIFETIME QUALITY

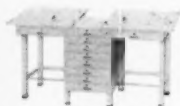
MULTI-STUDENT**INDIVIDUALIZED DRAWING UNIT DU-1200**

provides
horizontal
board storage
facilities for

12
students

- Efficient
- Economical
- Space-saving
- Private

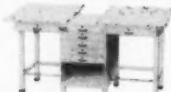
Drawers have individual locks, masterkeyed . . . hold boards up to 20x26 in a horizontal position plus tools, other material



for 10 students
the DU-1000



for 9 students
the DU-900



for 7 students
the DU-700



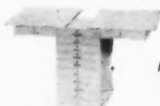
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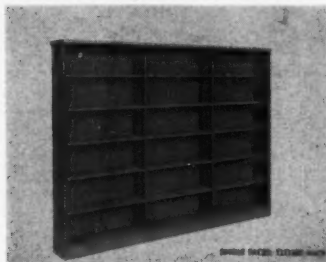
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BOOK CASE SHELVING

SE-426

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School libraries, especially, will find the new line of Penco book case shelving useful. Available in four styles—single double faced units with both open and closed backs and ten sizes—the shelving offers several unusual design features. For easy and quick positioning, the shelves are adjustable on 1" centers. Shelf design eliminates the need of shelf brackets and lets the shelf rest firmly on slots at four points of the double channeled upright panels.

The shelves also have a simple shelf end lock that prevents accidental shelf removal because the shelf must be raised to be released. The shelving also has specially designed floor plates and bases, which evenly distribute load weight and give an attractive flush-front appearance.

PENCO DIV., ALAN WOOD STEEL CO., 200 Brower Ave., Oaks, Pa.

EXECUTIVE CHAIR

SE-427

New Upholstered Line Introduced

All-Steel Equipment Inc. has introduced their new 600 Line of chairs for school executives. The line is smartly styled and bright, cheerful decorator fabrics, leathers and naugahydes are used for upholstery. Latex foam rubber buildup insures comfortable seating. The line consists of the following models: No. 635 Syncro-Tilt Posture swivel; No. 630 swivel; and two side chairs, No. 620 with arms and No. 610 without arms. The side chairs have a wall-saver device to protect walls from mars and scratches.

ALL-STEEL EQUIPMENT INC., Aurora, Ill.

March, 1959

MANUFACTURERS' CATALOGS**SE-501 Maintenance and Construction Products**

BP 6030. This four-page brochure contains descriptions of 21 leading building savers for plant maintenance. The brochure covers products designed for floor treatment, waterproofing and dampproofing, roof coating, as well as paints and protective coatings. L. SONNEBORN SONS, INC., Building Products Div., Dept. BS, 404 Fourth Ave., New York 16, N. Y.

SE-502 China

Choose Hospitality Patterns is a new 12-page leaflet featuring 15 illustrations of the Hospitality Group, available from Syracuse China. The Hospitality Group is composed of a complete variety of shapes and decorations, all designed to meet the needs of every food service operation. SYRACUSE CHINA, 1806 W. Fayette St., Syracuse, N. Y.

SE-503 Glass for Schoolroom Use

Catalog 59-G. Mississippi Glass Company, maker of rolled, figured, and wired glass, has just released its new catalog featuring the company's complete line and containing recommendations for various types of glass for schoolroom use. Included is a discussion of heat absorption, light transmission and diffusion qualities. MISSISSIPPI GLASS CO., 88 Angelica St., St. Louis 7, Mo.

SIPPI GLASS CO., 88 Angelica St., St. Louis 7, Mo.

SE-504 Automatic Controls System

Barber-Colman Automatic Control Systems is the title of a new brochure released by Barber-Colman. The brochure acts as a guide to assist architects and engineers in designing and planning an automatic control system for most types of heating, ventilating and air conditioning installations. The brochure discusses the application, advantages and features of Electronic Control Centers; presents the three basic types of control: electric, electronic, and electronic, their advantages and component structure; and deals with selecting the power control system. BARBER-COLMAN CO., 1300 Rock St., Rockford, Ill.

SE-505 Laboratory Furniture Sectional Units

Steelab pre-engineered sectionals make it possible to set up a completely equipped laboratory virtually within 24 hours. The company's new 24-page two-color Catalog No. W-4 shows how with a comprehensive line of interchangeable package units. The brochure illustrates and describes drawers, cupboards, sinks, tables, desks, chairs, storage cabinets, fume hoods, auxiliary units and full line of accessories and service fixtures. LABORATORY FURNITURE CO., INC., Old Country Road, Mineola, L. I., N. Y.

SE-321



The Series 1200 Lift Lid Desk groups side-by-side or front-to-front for a variety of interesting grouping arrangements. An exceptionally workable unit with 18" x 24" top, generous storage space. Shown with Series 500 Chair.

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american desk manufacturing co.  temple, texas

MANUFACTURERS' CATALOGS

SE-506 Locks

Catalog No. 5. Now available is a new 16-page catalog describing the complete line of the American Lock Co. All locks are shown full size; keyed alike padlock numbers are also included. JUNKUNC BROS., AMERICAN LOCK CO., 1145 W. Garfield Blvd., Chicago 21, Ill.

SE-507 Fire Alarm Systems

Autocall Type SA Fire Alarm System for Better School Protection. This new comprehensive folder features automatic reset,

automatic fire department summons, heat-actuated alarm devices, cadence-coded alarm signals, a lighted hall feature and provisions for easy expansion of the system with school additions. The folder also covers Autocall's fire alarm boxes, alarm bells and horns. THE AUTOCALL CO., Shelby, Ohio.

SE-508 Storage Literature

Bulletin ESL-2047. This new four-page illustrated brochure highlights ready-to-install steel units such as shelving, closets, cabinets, lockers, book cases, desks, kitchen equipment, and tool and shop equipment, and tells how these products are ideally suited to modern school needs.

REPUBLIC STEEL CORP., BERGER DIV., 1038 Belden Ave., N. E., Canton 5, Ohio.

SE-509 Outdoor Lighting

Moldcast Outdoor Lighting, is the title of a new 24 page, two-color catalog of outdoor weatherproof lighting fixtures for spot and reflector lamps published by Moldcast Mfg. Co. The new catalog contains illustrations, descriptions and specifications for stylish and distinctive lighting fixtures designed for outdoor illumination, drawings, light density tables, and power and coverage graphs for each fixture. MOLDCAST MFG. CO., 236 South St., Newark 5, N. J.

SE-322

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International Seat Division, Union City Body Company, Inc., Union City, Indiana

SE-510 Ice Cream Food

A booklet entitled *How To Reduce Your Ice Cream Food and Labor Costs* points out the causes of high costs in the retail handling of ice cream and suggests corrective measures for building ice cream business at a profit. It also contains recipes for the most popular ice cream dishes with a cost analysis on each item and stresses the use of ice cream products as desserts. SWEDEN FREEZER MFG. CO., 3401 Seventeenth Ave., W., Seattle 99, Wash.

SE-511 Central Control Sound and Intercom System

The Mark Simpson Mfg. Co. has published catalog No. 6000 listing a new line of multi-purpose, electronic central controlled sound and intercom systems for school and institutional uses. Four moderately priced systems are available providing high quality sound distribution and intercom system for the small as well as the large school user. THE MARK SIMPSON MFG. CO., INC., 32-28 49th St., L. I. C., N. Y.

SE-512 Stencil Duplicating

Tempo Stencils, Inks and Stencil Duplicators. Over 350 products for ease and convenience in stencil duplicating are listed in the 1959 Tempo Products Catalog. Included in this illustrated 28-page catalog are Tempo inks, stencils, Tempogeha paste and liquid ink duplicators, Temposcopes and other stencil art supplies, Tempolith Mechanical Negatives, cabinets and stands, stencil filing systems, accessories and supplies of all types. MILO HARDING CO., Monterey Park, Calif.

SE-513 Lawn Mowers and Trimmers

Features and specifications of the all-purpose Locke Single Unit power lawn mowers and trimmers are listed in an illustrated catalog sheet prepared by Lawn Mower Div., Locke Steel Chain Co. Available in 25" and 30" models, the Locke Single Unit machines are designed to do a complete mowing and trimming job without the assistance from major auxiliary tools. LOCKE STEEL CHAIN CO., Lawn Mower Div., 1343 Connecticut Ave., Bridgeport 1, Conn.

THE SCHOOL EXECUTIVE

MANUFACTURERS' CATALOGS

SE-514 Aluminum Roll-Up Walls

A new publication, which graphically illustrates the practicality of the latest roll-up type curtain walls has been released by The R. C. Mahon Co. The four-page publication, issued by the company's Steel Door Div., shows how a current combination gym-and-balcony installation was worked out with the new roll-up approach to double the utility of the space. THE R. C. MAHON CO., East 8-Mile Road, Detroit 34, Mich.

SE-515 Soap Dispensers

Catalog No. P-5806. Fully illustrated and containing detailed specifications and data on more than twenty-five dispensers, including the new Hi-fax Rigid Linear Polyethylene globes for basin-type dispensers, this catalog provides a convenient, easy-to-use source for dispenser specifying or purchasing. BOBRICK DISPENSERS, INC., 1214 Nostrand Ave., Brooklyn 25, N. Y.

SE-516 Library Furniture

AIA File 35B. This new profusely illustrated catalog features the Mid-Century line of wood furniture manufactured by Myrtle Desk Co. Included are charging desks, shelving, card catalog trays and cabinets, tables, chairs, miscellaneous library units, office furniture, lounge area furniture, planning pointers, typical library layouts and installations. MYRTLE DESK CO., High Point, N. C.

SE-517 Curtain Wall Panels

The Caloric Appliance Corp. offers a 40-page set of detailed specification sheets on Caloric curtain wall porcelain panels. The sheets describe and illustrate with detailed line drawings 17 different types of core materials including: aluminum honeycomb, paper honeycomb, foamglas, cement asbestos board, celotex, fiberglass, and insulrock, which can be used with exterior porcelain-enameled surfacing. CALORIC APPLIANCE CORP., Jenkintown, Pa.

AUDIO-VISUAL AIDS

SE-518 Safety Film

Lucky You is a new 16mm motion picture now available for teaching safety habits to children across the country. Recommended for school use by the National Committee on Safety Education of the National Education Association, the film was produced in cooperation with the National Safety Council. *Lucky You* shows in unforgettable ways that, while there is danger for children at home or out-of-doors, they can avoid injury and loss of life by observing basic safety rules about traffic, guns, fire and other sources of accidents. These precautions are emphasized in the film both

by cartoon and by photography of actual scenes. THE JAM HANDY ORGANIZATION, 2821 E. Grand Blvd., Detroit 11, Mich.

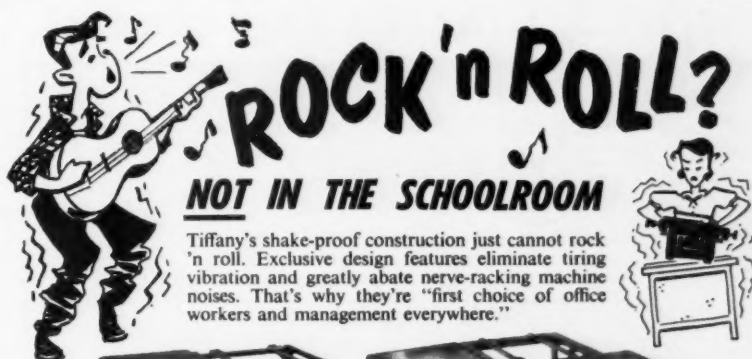
SE-519 Holiday Filmstrips

Holiday Filmstrip Folders are now available from the Society For Visual Education, Inc. The new folder includes a total of 53 holiday titles with new releases, such as *Grandfather's Boyhood Thanksgiving*, *Thanksgiving with Carol and Peter*, *Christmas with Carol and Peter*, *Let's Keep Christmas* and *A Puppy for Christmas*. A title index, at the back of the folder, makes it easy to select and order the holiday filmstrips. Every filmstrip listed is in full color. SOCIETY FOR VISUAL EDUCATION, INC., 1345 Diversey Parkway, Chicago 14, Ill.

SE-520 Science Films

A series of science demonstration films has been made available to high schools through a private grant. Purpose of the color films, none of which exceed four minutes, is to provide a ready library of complex, costly, or time-consuming demonstrations to supplement high school science courses. The films are especially suited to schools whose demonstration facilities are limited by inadequate budgets. Producer of the films is Professor Jonathan Karas of the University of New Hampshire. The first series includes *The Van de Graff Generator*; *Preparation of Hydrogen*; *Air Pressure*; *Surface Tension* and *Radiant Heat*. MVR SCIENTIFIC EVALUATION GROUP OF DURHAM, N. H.

SE-323



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For Further Information, Write Dept. SE

NEW TEXTBOOKS

SE-521 Universe

Man and His Physical Universe, Third Edition. Victor C. Smith. This is a text-workbook program in elementary science for grades 1-6. The program consists of six books. Each pupil is encouraged to participate in the activities included in the books. All of the experiments and activities are simple and the equipment required is readily available either in the home or in the classroom. The vocabulary is within the reading ability and comprehension of the average reader at each particular grade level. J. B. LIPPINCOTT Co., 333 W. Lake St., Chicago 6, Ill.

SE-522 Language Workbook

Language Workbook, Grade 2. Mildred A. Dawson and Bonnie Scales. The text directed to the second-grade classroom provides written exercises in capitalizing, correct sentence form, and a few easy items of usage; at the same time it affords many opportunities for reading, listening, and oral language. It is profusely illustrated in rich color. 96 pages. WORLD BOOK Co., Yonkers-on-Hudson, N. Y.

SE-523 Contemporary Science

Teaching Contemporary Science Events. Included in the booklet are tested activities for students, suggested activities for teachers and selected excerpts from the

unit logs of teachers having taught contemporary science effectively. The booklet has been published by Science Digest Magazine as a public service in a field which has been made even more important by the scientific advances disclosed by iron curtain countries during the last year. Copies may be secured from ALLAN CARPENTER, 200 E. Ontario, Chicago 11, Ill.

SE-524 American Literature

America Today. Charles H. Carver, Harold G. Sliker, and Morris H. Ball. This text, *America Today*, of the Life in Literature series, is an anthology of literary selections that interpret significant aspects of America and its people, past, present, or future. It is one of a series of books which have been planned in terms of the present maturity and interests of student readers, their future interests and needs, and the desirability of relating the special values of literature to other lines of student thought at each year's level of school work, especially in science and the social studies. PRENTICE-HALL, INC., 70 Fifth Ave., New York 11, N. Y.

SE-525 Review Workbooks

Warp's Review Workbooks is a pamphlet listing the review workbooks available on science, geography, history and civics, language and grammar, spelling and word study, arithmetic, health and physiology, and music. Titles, grade levels, along with prices are included for all series. WARP PUBLISHING Co., Minden, Neb.

SE-526 Teaching Shut-In Students

Teachers, school administrators and physicians, as well as parents, concerned with the education and welfare of boys and girls confined to their homes or to hospitals because of illness will find useful information in a new 24-page handbook by J. A. Richards, Director of the Special Education Div. of Executone, Inc. Titled *How To Teach Shut-In Students By Telephone*, the booklet contains suggestions for dealing successfully with many of the educational problems of homebound and hospitalized children. The material is the result of a study of hundreds of cases in which application of a home to school telephone device proved of great benefit not only in enhancing educational progress but in heightening morale of immobilized children and in speeding recovery. The handbook describes how the home teacher, class teacher, school administrator, parents and, if the child is hospitalized, the hospital administrator, are intimately involved in the process of educating a shut-in child. The booklet is also addressed to the shut-in himself. In addition to technical data, the pamphlet explains the minimum physical and mental requirements of children who may benefit from the system and provides data on educational effectiveness and psychological values of the telephone teaching service. EXECUTONE, INC., Special Educational Div., 415 Lexington Ave., New York 17, N. Y.



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March, 1959

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470 Fourth Ave., New York 16, N. Y.



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THE SCHOOL EXECUTIVE

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If further information concerning any of these products is desired, it will be sent without charge or obligation. Simply circle the identifying numbers on the back of the business reply card below and mail it to us.

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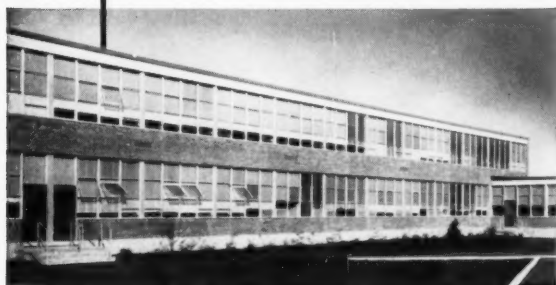
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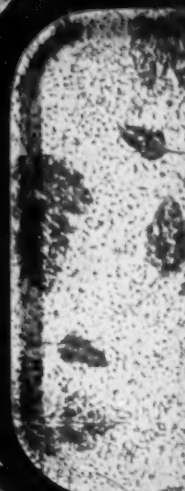
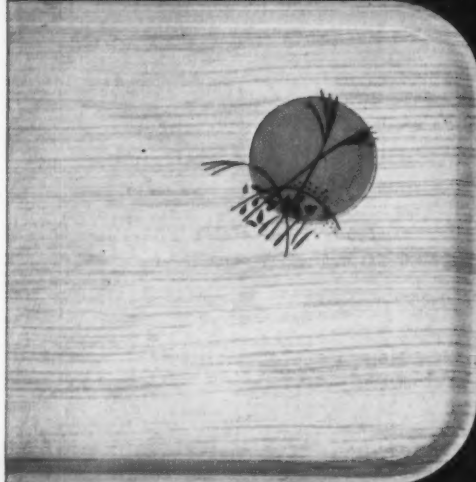
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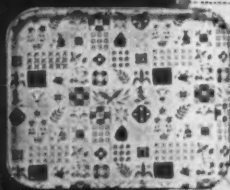
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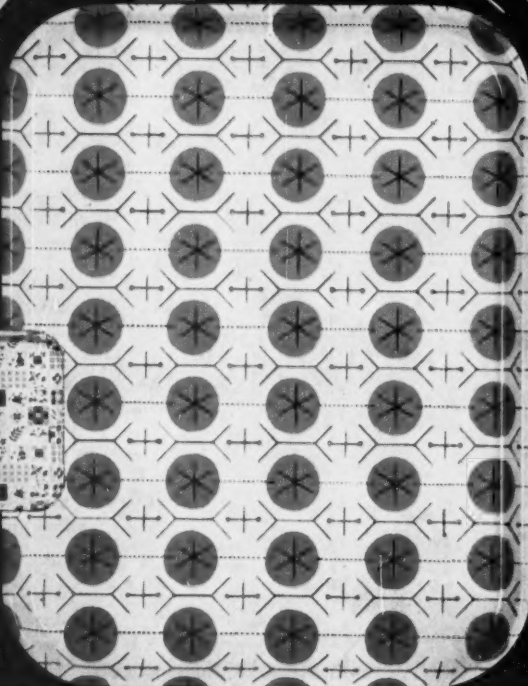
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